DOCUMENT RESUME

ED 075 449 TM 002 526

AUTHOR	Goolsby, Thomas M., Jr., Comp.
TITLE	Invitational Conference on Measurement in Education: Proceedings (of the) Eleventh Southeastern Conference (December 8-9, 1972). Session I.
INSTITUTION	Georgia Univ., Athens. Coll. of Education.
SPONS AGENCY	Harcourt Brace Jovanovich, Inc., New York, N.Y. Test Dept.
PUB DATE	8 Dec 72
NOTE	211p.; Papers presented at Session I of Southeastern Invitational Conference on Measurement in Education (11th, Athens, Georgia, December 8, 1972)
EDRS PRICE	MF-$0.65 HC-$9.87
DESCRIPTORS	American Indians; *Conference Reports; *Disadvantaged Youth; *Educational Research; *Measurement; Mental Retardation; Negro Students; School Integration; Special Education; Speeches

ABSTRACT

Eleven papers presented at Session I of the 11th Invitational Conference on Measurement in Education are provided. This session focused on special education subgroups, especially the disadvantaged. Particular emphasis was placed on mental retardation, American Indian education, school desegregation, and the gifted disadvantaged black. The eleven papers are: "Hazards in Research Involving Minorities" by Junius A. Davis, "The Self Concept of Mental Retardates: Some Problems of Assessment" by John L. Shultz, "Non-Cognitive Development of Mentally Retarded Children" by Bert O. Richmond, "Assessment of Motor Learning Through Mathematical Analysis" by Ernest L. Bundschuh and Susan J. Gooch, "Evaluating Achievement of the Mentally Retarded: A Comprehensive Process" by Andrew L. Shotick, "Measurement and Testing Considerations for Native American Education" by Joseph D. Blanchard, "School Desegregation - The Problem" by Milton Hill, "Perspectives of School Desegregation in the Southeast" by Morill M. Hall and Harry B. Williams, "Identification of Gifted and Creative Children and Youth Among Black Disadvantaged Groups" a symposium, "The Prediction of Achievement Means of Schools from Non-School Factors Through Criterion Scaling" by Tom C. Innes, and "Information Feedback Systems (IFS) and Educational Goals" by William F. White. (For related documents, see TM 002 522-525, 527-547.) (KM)

ED 075449

TM 002 526

PROCEEDINGS

Invitational Conference on Measurement in Education

Eleventh Southeastern Conference -- December 8-9, 1972

Compiled and Organized by

Thomas M. Goolsby, Jr.
Conference Chairman
University of Georgia

Session I
Friday Afternoon
December 8, 1972
University Motor Inn
University of Georgia
Athens, Georgia

Papers by:

Jack Shultz
Bert Richmond
Ernest Bundschuh
Andrew Shotick
Junius A. Davis
Joseph D. Blanchard
Tom C. Innes
William F. White
E. Paul Torrance
Catherine B. Bruch
Harry B. Williams
Morrill M. Hall
Milton Hill
Walter R. Jacobs, Jr.
Gwendolyn Howard
Robert Westcott

Sponsors:

College of Education, University of Georgia

Test Department, Harcourt Brace Jovanovich, Inc.

FILMED FROM BEST AVAILABLE COPY

Foreword

The main session of the Invitational Conference was focused on special educational subgroups; especially the disadvantaged. There was particular emphasis on mental retardation, American Indian education, school desegregation, and the gifted disadvantaged black. The introductory address, "Problems in Evaluation Studies of Educational Programs for Minorities," was presented by Junius A. Davis.

Thomas M. Goolsby, Jr.
Athens, Georgia
February 20, 1973

Invitational
Conference on
Measurement
in Education

ELEVENTH SOUTHEASTERN CONFERENCE

December 8-9, 1972
University Motor Inn,
University of Georgia
Athens, Georgia

Sponsors:

College of Education, University of Georgia
Test Department, Harcourt Brace Jovanovich, Inc.

ELEVENTH SOUTHEASTERN INVITATIONAL CONFERENCE ON MEASUREMENT IN EDUCATION

Pre-Conference Session in Conjunction with

The National Council on Measurement in Education
The Association for Measurement and Evaluation in Guidance

Friday, December 8, 1972
Main Dining Room
University Motor Inn
Athens, Georgia

Ira E. Aaron, University of Georgia, Presiding

9:00 - 9:30 a.m.	Legislative Accountability for Public Schools - Goals for Georgia Sam A. Nunn, United States Senator Open Discussion
9:30 - 10:00 a.m.	Public Schools in Transition - One Student Body, Its Needs and Directions George R. Rhodes, Jr., United States Bureau of Equal Educational Opportunity Open Discussion
10:00 - 10:00 a.m.	Coffee Break.
10:30 - 11:00 a.m.	Man to Mankind: The International Dimension of Teacher Education David Imig, American Association of Colleges of Teacher Education Open Discussion
11:00 - 11:30 a.m.	Measurement and the "Right to Read" Ira E. Aaron, University of Georgia Open Discussion
11:30 - 12:00 noon	Measurement for Purposes of Evaluation Dennis E. Henkle, Virginia Polytechnic Institute and State University Open Discussion

Friday, December 8, 1972   E. Paul Torrance, University of Georgia, Presiding

8:00 a.m.-1:00 p.m.	Registration Grace Wray
1:00 - 1:30 p.m.	Introducing the Conference
Welcome:	Joseph A. Williams, Dean, College of Education, University of Georgia
Greetings:	Philip I. Clark, Test Department, Harcourt Brace Jovanovich, Inc.
1:30 - 2:15 p.m.	Problems in Evaluation Studies of Educational Programs for Minorities Jay A. Davis, Educational Testing Service, Raleigh, North Carolina
2:15 - 3:30 p.m.	
Session I: Main Dining Room	Perspectives of School Desegregation in the Southeast Morrill M. Hall, Milton Hill, and Harry B. Williams, Center for Educational Improvement, University of Georgia
Session II: Large Gold Room	Issues in the Testing of Indian Children with Some Emphasis on Behavior Modification and Other Operative Programs Joseph D. Blanchard, U. S. Bureau of Indian Affairs
Session III: Small Gold Room	A Systems Approach to Reading for Migrant Children Muriel M. Abbott, Test Department, Harcourt Brace Jovanovich, Inc.
Session IV: Bronze Room	The Prediction of Achievement Means of Schools from Non-School Factors Through Criterion Scaling Thomas C. Innes, State Testing Bureau, University of Tennessee
3:30 - 3:45 p.m.	Coffee Break

ALL ACTIVITIES ARE SCHEDULED IN MAIN DINING ROOM UNLESS OTHER WISE NOTED.

3:45 - 5:00 p.m.

Session I: Large Gold Room
Mental Retardates: Children With Different Abilities

Measurement of the Self Concept of Mentally Retarded Children
Jack Shultz

Affective Characteristics of the Mentally Retarded
Bert Richmond

Motor Development in Mentally Retarded Children
Ernest Bundschuh

Evaluating Achievement of the Mentally Retarded - A Comprehensive Process
Andrew Shotick
Mental Retardation Center, University of Georgia

Session II: Main Dining Room
The Effects of Item Analysis, Frequency Distributions, and Profile Analysis on Instruction in Two Programs for the Disadvantaged

Information Systems and Economically Deprived Children
William F. White, University of Georgia

Evaluation of Follow-Through Programs
Frances Cox, Atlanta City Schools

Session III: Small Gold Room
Identification of Gifted and Creative Children and Youth Among Black Disadvantaged Groups
E. Paul Torrance and Catherine B. Bruch,
Department of Educational Psychology, Measurement and Research, University of Georgia

Session IV: Bronze Room
Who Needs Adult Basic Education?
Joseph E. Fuller, Atlanta City Schools and Fulton County Schools

6:30 - 7:30 p.m. Social Hour

7:30 p.m. Dinner

Saturday, December 9, 1972 Clemmie W. Brower, Atlanta City Schools, Presiding

8:00 - 8:45 a.m. Davis House Cafeteria	Steering Committee Breakfast Meeting
9:00 - 9:45 a.m.	Ethical Issues and Questions About Testing Confronting Test Publishers Thomas J. Fitzgibbon, Director, Test Department, and Vice-President, Harcourt Brace Jovanovich, Inc. Open Discussion
9:45 - 10:30 a.m.	Ethical Issues in the Use of Humans for Research W. L. Bashaw, University of Georgia Open Discussion
10:30 - 11:00 a.m.	Coffee Break
11:00 - 11:45 a.m.	Alternatives to Psychological Testing Donald N. Bersoff, University of Georgia Open Discussion
11:45 - 12:00 noon	Respondent Warren G. Findley, University of Georgia

Planning Committee

Thomas M. Goolsby, Jr., University of Georgia (Chairman)
Clemmie W. Brower, Atlanta City Schools
Robert Duby, Harcourt Brace Jovanovich, Inc.
James M. Dunlap, North Carolina Department of Public Instruction
Robert B. Frary, Virginia Polytechnic Institute and State University
Thomas C. Innes, State Testing Bureau, University of Tennessee
Thomas H. Parry, Clemson University
Robert H. Smoot, Harcourt Brace Jovanovich, Inc.

TABLE OF CONTENTS

Page*

Foreword 1

Program 2

Table of Contents 7

Hazards in Research Involving Minorities
by Junius A. Davis 8

The Self Concept of Mental Retardates: Some Problems of Assessment
by John L. Shultz 27

Non-Cognitive Development of Mentally Retarded Children
by Bert O. Richmond 37

Assessment of Motor Learning Through Mathematical Analysis
by Ernest L. Bundschuh and Susan J. Gooch 48

Evaluating Achievement of the Mentally Retarded: A Comprehensive Process
by Andrew L. Shotick 61

Measurement and Testing Considerations for Native American Education
by Joseph D. Blanchard 72

School Desegregation - The Problem
by Milton Hill 156

Perspectives of School Desegregation in the Southeast
by Morrill M. Hall and Harry B. Williams 167

Identification of Gifted and Creative Children and Youth Among Black Disadvantaged Groups
by E. Paul Torrance, Walter R. Jacobs, Jr., Gwendolyn Howard, Robert Westcott, and Kay Bruch 175

The Prediction of Achievement Means of Schools from Non-School Factors Through Criterion Scaling
by Tom C. Innes 179

Information Feedback Systems (IFS) and Educational Goals
by William F. White 197

---

*Refers to numbers at the bottom of pages.

ED 075450

TM 002 267

Hazards in Research Involving Minorities*

Junius A. Davis

Educational Testing Service
Princeton, N. J. and Durham, N. C.

Having grown up squatting by a tobacco barn that produced a return of some $500 annually for several thousand man, woman, and child hours of labor, or walking across the railroad to the cotton mill to take lunch to my father, who packed yarn in boxes for a beautiful $90 per month when the mills had orders to fill -- and, being one of those southerners who could name as many blacks as whites of his age at 10 -- I accepted eagerly and confidently the assignment as project director last summer of a major national effort to evaluate the impact of federally supported college programs for "disadvantaged" students. That was my first mistake -- not taking on the task, but accepting it with the confidence that both my own origin, and my training at the most exalted seats of rigor in social research, had equipped me to handle the task.

But this is getting ahead of my story (for this, most precisely, is a story, rather than a paper).

The story should start with the Higher Education Amendments of 1968, that led to a structure and federal support of "Special Service Programs" in institutions of higher education for "disadvantaged" (the language in the Amendments) students.

The funds -- $15 million last year in the third year of operation --

---

* A paper presented 12/8/72 at the Eleventh Southeastern Invitational Conference on Measurement in Education, sponsored by the College of Education, University of Georgia, and the Test Department, Harcourt Brace Jovanovich, Inc., in Athens, Georgia.

provided monies for counseling, tutoring, ethnic identity mechanisms, remedial or study-skills activities, or other supporting services, affecting more than 30,000 disadvantaged students in almost 200 colleges and universities. "Disadvantaged" meant, most precisely in the Act and guideline definitions, origin from a family within the national poverty criteria -- (or students with physical handicaps). In practice, of course, although the "minority" of poor white was included (incidentally, a USPHS survey has found that 70% of the nation's poor are white) the resulting programs in the colleges and universities, directed by persons with background similar to target group, are programs for America's minorities -- the Blacks, the Chicanos, the Native Americans or Indians, the Puerto Ricans, the Phillipinos, and other minorities, as well as the poor whites and disabled.

Our mission was prescribed very precisely in the contract with USOE. Our principal charge was to identify successful programs and learn what factors were associated with effectiveness, using student centered criteria of success, satisfaction and continuance in school. We established a national sample of 120 institutions, stratified to provide sizeable numbers of students -- enough for statistical analyses -- in each of the major minorities.

The first mistake I noted was confidence that having been poor as a child and adolescent I had an empathy that would get me access to, if not love from, the experimental subjects. The second mistake was taking all the charges leveled of late against ETS by minority groups -- inadequate representation of minority group members on research staff, use of culturally biased tests in assessment, remoteness of research from the target student except through questionnaires -- and assuming that complete easement of these conditions would see us sailing through. But again, I'm getting ahead of my story.

We assembled a team of a dozen professionals -- with only two of us in the clear white category. Chuck Stone, formerly assistant to Adam Clayton Powell, and a sociologist and journalist, was made co-director of the project. We inventoried some two-dozen minority group professionals across the country who would serve in substantive roles as consultants. We then proceeded -- as we are taught to do at Columbia, Ohio State, Wisconsin or U. Ga.--to the literature. We acquired rather quickly a file of some 1,000 papers or books, and established contacts with some frontier people, like Dr. Ed. Gordon at Columbia who kindly shared chapters as tentative draft was ready. It was here that we encountered our first hazard -- that of LABELING.

What are the causes -- or associated conditions -- with the problems that minorities seem to experience in learning in our traditional or modal educational contexts? There seemed to be a majority of our more reputable bibliographie finds that appeared, at first, to be model developmental activity, or attempts to derive testable postulates that would suggest remedial strategies. But, these, we found, involve finding descriptive labels to manipulate --"culturally or academically deprived" was an early one in vogue -- that while eliciting no strong emotional response in the scholar who reaches the AERA journal by way of Exeter and Harvard strike a different and dissonant cord with vocal members of the groups described. By 1968, "disadvantaged" had generally displaced the term "deprived", but by 1971 Chuck Stone, our Co-Director then, was harranguing at APA for the concept and term of "disequalized."

Cultural deficiency vs. cultural difference -- as concepts -- probably aren't that different. But before one can follow on to examine the more precise concomitants of the condition that explain failure of traditional methods of motivating and instructing or facilitating learning or to establish the elements needed for effective learning, that heat comes on. It is apparently very difficult to make any minority associated difference in a majority society non-threatening or non-abusive when it is used before or with the minority by a person associated with the majority. And, because the low valuation of the minority is so firmly entrenched still in both our majority and minority societies, any term used soon becomes a euphemism for that low-valued condition. The debate becomes one of searching for a more satisfactory label, rather than examining by purely logical means the potential cause and effect. Any label comes to have negative meaning, and that negative meaning appears to be both cause and symbol of the trouble minorities have experienced in the first place. We are left with millions of words (and demonstrations and diatribes more frequently than researches and reports) that place us, against the criterion of showing how effective learning can be contrived, about where we were twenty years ago when we awakened to the urgent need of providing equal opportunity.

Though somewhat deflated, we said to ourselves that we nevertheless could proceed to try to discover if, through a varied set of criteria, what institutional, programmatic, personal factors seemed associated with success, satisfaction, or achievement in our institutions of higher education. Surely with so many people involved and with no accepted, common models of excellence to guide them, there would be variance that could be partialed, explained, significated, and so on through tables with asterisks and P-values.

Our task was to explore student success, satisfaction, and aspirations, against a backdrop of program and institutional descriptive indices. Leaving this time any conventional tests as far away as Iowa City, we assembled a multi-ethnic team of regular staff and prime consultants to develop a questionnaire. Having had our share of charges of cultural bias, we kept our instruments to the point. Program directors were asked how much money they had, and what they would do if they had more. Students were asked to describe their high school, report academic progress; state what, if any, supporting services they knew were available, if they had used them, if so how helpful -- and how they felt about college and their plans for the future. To assure that subtlies -- and the world as it really was -- might be exposed, we asked institutional representatives to nominate students from the target groups who were vocal and seriously concerned with student welfare to be trained and returned to campus to conduct interviews in their own terms.

Our strategy for the interview activity seemed foolproof. We flew our student nominees from the special services programs to Atlanta, Chicago, and San Francisco for training; they were returned to campus to interview peers, and then, in elite reunion, at Albuquerque or Washington, reconvened to tell each other (while our tape recorders listened) what they had found, and to check our summations and interpretations of these reports for insight and fidelity. Openly, we said: your involvement is our guarantee that your viewpoint is central in the ultimate expression of findings and recommendations, whatever the limitations of questionnaires.

Our Atlanta and Chicago meetings went smoothly. But in San Francisco, some of our most vocal, concerned, and desirable students -- so labeled because of their forthrightness -- demanded time out for caucus, and returned to state that the study could only proceed if the proposed semi-structured leads of the interview were thrown out, students reconvened to draw up their own interview guides, and with separate designs for each minority group developed by that group for interviews and all other instruments; -- and then, of course, complete student control of the report. It made no difference that $100,000 of federal funds had been spent already, that the Office of Management and Budget had tedious requirements for approval of instruments that ours had met, that the study was already in progress elsewhere across the country, or that delay would delay recommendations for new spending on programs another year. And, their terms were not a simple condition for their participation -- but what we must do or these youngsters, they assured us, would stop the study. How --? Using their federal telephone lines and regional or national meetings to call a boycott. By the time our 747 got us back to Durham, we had ample evidence several hundred telephone calls had been made.

We had tried -- by asking and planning to use honestly their involvement -- to insure against cultural bias in the way our simple questions were asked, and by letting students report what they considered important. The answer was -- "No deal, only we students can do the job, and we must control the whole thing."

The hazard here was the difficulty of negotiating in good faith -- as social scientist. Some of those who felt the pains of discrimination-born poverty most acutely see the government, ETS, the research community as part and parcel, tool and perpeturator, of a discriminatory and prejudicial system.

Given a chance to state views was not enough -- Rather, the only insurance that these would not be used against them was complete involvement and control.

Our first reactions were to feel a little stung because our careful efforts to use the controls of scientific method to assure objectivity were not understandable or acceptable as a guarantee of truth and fairness.

Having designed a set of testable hypotheses, scrubbed our methods to assure known limits for generalization, we were -- well, hurt when questions to tap ethnic pride and identity such as what leaders have had the most inpact on society were seen as traps that, in our later valuations, would reveal our subjects as not of our best tribe. We had to interject the working concept that individuals not trained in use of scientific method cannot comprehend the built-in guarantees, and that we must take responsibility for not letting the targets get hurt by their suspicions.

One example of this: we worried what Ronald Regan would do to state funding if he had to learn that given an "honest" chance to report what they felt the student leaders walked out and back to campus to stir up their peers to stamp out the study. Another kind of example: students and their fearful elders on one campus decided not to answer some of the questions. But these questions -- all related to minority-instigated disruptive protest or conflict with administration -- told us more about the difficulties on that campus than would have the answers to the question (we validated this, incidentally, by visit).

My thinking now, however, takes me to the less democratic stance to believe that the students were trapped in a situation of pressing for their own goals, -- whether these were desirable or not, in their own ways, whether these ways would be effective or not -- at whatever costs. It is now not a matter of no confidence nor understanding of scientific method as a means of attaining truth, but of the fact that our truths seem punitive. The game becomes using any vehicle to reach one's urgent goals. These are achieved, in their practice, not by examining all sides of the question openly, as researchers are supposed to do, but by pressing for -- forcing, indeed -- one's own side, interpretation, and solution. The exercise of political power; or the tactics of group stand and threat of disruption; or, the adversary method, - where lawyer takes a client and defends him by developing the best case he can for relief or redress, ignoring contrary facts (the responsibility of the adversary) -- were not philosophies or strategies ready or able to adopt).

Yet, was not understanding the researchers modus operandi, or fear of injurious finding, or need to control, or suspicion of our real motives, the forces pressing these minorities? In one of the situations we encountered, I believe we learned a much more valuable, if also painful, lesson.

Our multi-ethnic team in San Francisco, including an Indian with PhD in Student Personnel Administration from the University of Minnesota, had met with some 30 students -- Blacks, Chicanos, Native Americans, Physically Handicapped, Poor White -- at Fisherman's Wharf in San Francisco. We explained our purpose -- to determine where federal funds were used effectively, and urge more adequate spending; we stressed our needs for their input, their own perceptions. As we would turn head to right, we had 5 Indians listening attentively -- then head to left, and back to right revealing 8 Indians -- then 12, then 20, and obviously aging all the time. Beginning to know something of how Custer must have felt, we paused to inquire. An elder -- who later revealed himself to be the head of a major university Native American Affairs program, and a scholar of some distinction -- had been called in by a student fearful or suspicious of the deal.

The message he had: Indians have unique treaty rights that in practice have been denied; the need was to increase Indians in college programs, to increase colleges solely for Indians; only Indians could understand, even interpret, other Indians; the study must pause, regroup under Indian control, or "our company" would be sued in the courts. We felt further grieviously misunderstood when one requirement of the interview procedure -- for interviewer to judge the cooperativeness or frankness of the interviewee -- later did appear in a statement from an Indian attorney as one item potentially gravely injurious. But while no procedure of patient elaboration of purposes and safeguards could prevail, my red friend stated a simple truth that should shake each of us here to our toenails. "The Indians have been researched by the white man to an enormous extent," he said. "But the Indian still is neither understood nor has he benefited from this." What impact our research, fellows? What changes in the lives of our subjects or their successors do they see? Our concern is to pass critical muster when we publish in Psychometrica -- were it otherwise we would have been missionaries or social workers or lawyers. The hungry man wants food, not a system that next year may or may not make more food generally available.

I noted the presence of an Indian professional on our research team. The fact we ran into wholesale attack led us to discover still another class of hazard. Our Indian, by her background, training, and current position was not really an Indian, but most precisely a Catholic female representative of the white establishment, assimilated beyond a vestige of original identity. When the attack hit, neither of the two obvious choices were acceptable to her -- to join her group and be one of them, or to remain with us and try to interpret an unacceptable argument. She retreated from the engagement.

A Chicano staff member, with PhD in Educational Administration, did not -- though when several months later we reconvened the students who ultimately decided to stay with us, the Chicano group caucused and presented a formal petition and condition that they would report only if this (in our view, able, sensitive, and concerned) man were barred from any role in writing the final report. "He's not a real Chicano," we were told. "He even speaks Spanish now with an English accent."

Generally, we learned that about the dirtiest and most threatening word we could use was "assimilation." The threat value comes from a hazard the researcher faces of collision with the movement forces that feature cultural identity and pride -- and, with the sub-cultur a minority in the majority culture, the too-complete equalization that threatens the identity with and valuing of the sub-culture. What, indeed, given the need for rewarding rather than possible punitive findings, would be the rewards? Most emphatically, we learned, the reward was not becoming like the majority, but having what the majority is assumed to have.

A bright and attractive, straight A student who had contributed some of the most sparkling insights, sat privately with me over coffee in Albuerque -- and said: "I just want to go home." -- Not home from Albuerque, but home from college. "I was sent there from the reservation to get a training that could help my people, the Kickapoos. But I don't like it in college, and I don't want to go back after college in that role. I want to fade among the women, and do my thing there as the others." I replied that a native of my state had pointed out "You can't go Home Again." But the accute inner struggle that I could but barely perceive told me that she had a deeper problem, and that although researchers are beginning to get some notion of the Black we know nothing at all of the Indian. I thought, then, how sterile our questions were for this girl -- and pondered how anyone -- even herself -- could set an educational structure, a life goal, a way of life for her.

Thus -- though our attempt to use relevant questions and phrase answers in student's own terms was threatened -- and new arguments (leading to the notion of needing rewarding findings) exposed that "cultural bias" was not the real issue -- we did and do have to come full circle to the difficulties of being sufficiently sensitive to the different structure of experiences, values, traits -- And, how know or get access, given non-membership in the Kickapoo? How train one girl to be a researcher and do this job herself? If we succeed, we place her in the position of the PhD from Minnesota, who, effectively, had excommunicated herself. This problem, I dare say, is not strictly a Native American problem.

How we maneuvered to keep the study going would require days to tell, and involve things I would not consider proper to tell about publically -- though we were honest and forthright. We did find that the best way of getting honest cooperation was listening, not debating, on a one-to-one or small group level. A Rogerian approach won where give-and-take, where "o.k. what is needed," failed.

A stand that we took, in good faith and conscience, to meet the presenting problem in the respondents terms turned to our advantage in a way we had not anticipated, providing another subtle lesson as to the hazards and responsibilities of the social scientist in such situations. In one instance, where members of an ethnic minority in a group that we had convened banded together to demand that they plan and control a part of the study, we agreed to let them proceed toward drawing up an alternate proposal. We found very quickly that though these people stood together when they perceived themselves to be under attack, that with the attack gone their color or ethnicity was not sufficient to erase the very real and honest differences that exist in any group of serious men dedicated to improving the condition of man. Internal difference of opinion -- and, I suspect, the impossibility of any group, even of professionals, planning a good research project -- prevented any forward movement. We had observed earlier, in other activities, that though Blacks may frequently challenge a white institution to provide courses dealing with black culture, once complete freedom to proceed is given controversy looms as to their content, place, and emphasis. This is NOT to state, of course, that individuals in one or another ethnic minority are clowns who cannot run with a ball, but that the underlying issues, placed (in phenomenalogical terms) in ground while the rights for the minority to control their destiny are being won, rise sharply into figure once freedom to proceed is obtained. The social scientist, faced with such a situation, must either proceed with much super-ego as opposed to ego, or take the time and pains necessary, indeed if this be possible, to serve as guide and advisor so that the basic task may proceed.

But you have been abused far too long by my own selfish views. In closing, let me let two of our human subjects speak for themselves.

The first is a project director at an institution I will call MacGillicudy University. This man, a respected member of the faculty, with Ph.D. in Psychology, and director of the Special Services Program there, refused, with his president's initial consent, to let that institution get involved in any way in the study, or to admit the researchers to the campus. In the initial statement, the major reasons had to do with the local conviction that only the staff and students involved in that program at that institution could design, control, and conduct a fair assessment. Our project officer in Washington pointed out rather quickly that under the terms of the contract and funds they had accepted with USOE, participation was required, or continued funding would be placed in serious jeopardy. We later learned that initially the president and program director stood firm, with their protests going not only to friends in the Congress but as far as the White House. Nevertheless, the interpretation of our USOE project officer was upheld upon review, and internal pressures at the college began to seek compromise. We achieved that compromise by negotiating to send a team of site visitors to the campus, for conversations in their terms, but not to exact the other interview and questionnaire data that the program director found offensive. Once on campus, we were given access to a paper by this project director that explained his stand to others on the campus and to us. It reads, in part:

> Historical Experiences with Evaluation Attempts
>
> Several attempts have been mady be various members of the faculty and administration to research/evaluate EEO/SSP. We have historically resisted these purely on moral and ethical grounds. It is our contention that Black human beings must cease to be treated as guinea pigs to satisfy someone's intellectual and social curiosity. We are not convinced that this type of evaluation has any relevance to the sound administration of the program, or to the educational process which our students are all about. The forces of racism which made this program necessary could not have been eliminated from (Mac Gillicudy) within the three years that the program has existed. It is our contention that if any evaluation is necessary at all, it is those forces and the institution which nurtures

them that need to be evaluated, not the people who are mere victims of those forces.

The Nature of our Resistance

We refused to participate in the ETS evaluation study because of our moral obligation to avoid subjecting Black people to situations which represent no partisan interest for goal achievement. It should be clear that we do not fear that our program will be found "unsuccessful". The question of success or unsuccess is a complicated issue. ETS's presumed definition of our purposes and our ideological commitments are decidedly different. What is successful for ETS is unsuccessful for us and what is unsuccessful for ETS may offer us a glimer of success. At best, it may tell us we are not educating people who believe and want to totally assimilate into a bankrupt educational process. The decided difference in how ETS views our purpose on this campus from how we view our purpose renders the conceptualization of the evaluation design as well as the instrumentation of the design inadequate and unusable.

Some people have asked why not select other methods of resistance or protest which more directly affect ETS. It should be made clear that protesting against ETS or the Office of Education is not the issue. The issue is having the power to define whether we will be in or out as we choose from partisan interest. Protesting against ETS/USOE and then participating in the evaluation study represents the kind of contradiction which is directly opposed to our principles. To date the question of ETS's illegitimacy to the Black community rest only with the small number of Blacks and other third world people represented on its staff. It is our position that the employment of more Blacks will not change the nature and organization of ETS.

The Nature of our Resistance

The problem with ETS for Blacks is the function it has, along with higher education institutions, to limit the number of people who have access to knowledge and skills. Through ETS' testing mechanisms, institutions decide who will go on to higher education, who will enter the menial job market, the managerial job market, who will go into the military, and who will have no job at all. ETS is a designer of oppression while educational institutions are instruments of oppression. The issue is not for ETS to survive with more Blacks on its staff but for ETS not to exist at all.

——There, Harcourt, Brace, Jovanovich, and all you other good measurement people, but for the grace of God and but for not having a contract like this one, go you! Beyond saying this, I do not care to detract from my own battered dignity by saying anything else.

My final report from the other side is the statement made, as recorded electronically, at the close of a debreifing session with our student interviewers in Washington, D.C. The format of the meeting was, after a brief general session, to let each minority group retire to separate rooms and discuss and debate their experiences, draw up whatever recommendations they cared to make, elect a leader to report this back to the total group for further discussion and debate. The young man elected as spokesman gave the following report for his group, which is reproduced here in its entirety:

> The groups that I am representing were the Puerto Ricans and the Chicanos and I think like all schools we found out that we're in racist institutions and in so far as the interview goes we found out things like it was too repetitious and it was taking us three hours and at times the students were insulted when we offered them to compensate for their times. We also had alot of difficulties with college representatives. Some of them didn't give us the names of the respondents until days before that we received information on tickets. We also, I think this should be brought up if nothing else, is the reactions that the respondents had about ETS conducting such an interview. I think that for the most part I can say that one student was saying that when she approached the students she wasn't saying ETS was conducting the survey, it's HEW because the Chicanos and Puerto Ricans have special problems. We have the language barrier and when we start out it's Spanish and not English so we have that problem to work with. But because we have that problem we also know that in evaluating all these Federal programs we also have to evaluate the proliferator of this racism and that would be ETS. We're saying ETS, you're discriminating against us and you have to change because if you have certain scores that are going to enable us to get to certain colleges and not to others, well how are we possibly going to be able to cope with this. We have our problems here and we need for you if you're making a total evaluation of Federal programs to evaluate yourselves. And I think that the Chicanos would be unanimous in saying this to you because I know that in California you had problems. You had a big demonstration by the Chicanos and the American

> Indians. I was talking to the Chicano representative that you had in Chicago and he said ETS is not doing the job. I'm from the Atlanta group and I'm saying ETS is not doing the job. So ETS is going to have to change. We're looking for an evaluation of ETS. And also when you do make some kind of recommendations we're looking for the project director to have the total sayso and whatever is recommended. Because I know that since ETS is funded by the Federal Government you will have to have some kind of consensus within your Black staff members and I don't know how many Chicano staff members you have, but you probably won't have the consensus there. You're going to have to have some kind of desenting and concurring viewpoints on your final recommendations. And most of all, for this project to be valid you're going to have to have the student input. You're going to have to have a body of students to look over your recommendations in order for it to be valid because you're getting all these ideas from students all over the country and you do not have an elite working with you then you do not have a program. So we're saying ETS do its own program and we'll be able to work with you and if not, we won't be able to work with you.

There was no member of our research staff who at that point could not have honestly said, I believe, "Amigo, we are with you, and if our right hand offends thee, then, by God, let's cut it off." But we also had to say to ourselves: "Here is a platform, a channel of authority of potentially great power, for you to use in recommending to the Federal government what steps need to be taken to ease your problems. What, for heavens sake, are those needs, and what should Washington do about them?"

I have not been fair to the project or the project team in reporting these isolated events. There were some other statements and situations of substantial protest or forceful resistance that I have not reported, but by and large we faired well in meeting the terms of the contract. In spite of these kinds of problems, we achieved in most instances of interview, student questionnaire, or institutional questionnaire situation, a response rate in the neighborhood of 90%. I personally felt a deep reward when one of our most thoughtful students in the California group, after several weeks of being torn by whether to go with her hostile peers or with the research project, wrote us that she had decided to proceed. "I have had many phone calls and letters telling me this is bad for the Chicano to continue with the ETS," she wrote. "I honestly can't be sure that anything good will come of it, but if there is a chance I think we should take it." And I shall never forget the honest embrace she gave me when we met at the start of the debriefing session in Albuquerque, nor the seriousness, dedication, and thoughts she contributed in the meeting following. I must be true to my data and my discipline, but I have an emotional integrity now to maintain as well.

What is the solution? Perhaps it is, as Harold Pepinsky wrote years ago in his last regular contribution in the Journal of Counseling Psychology, that the researcher cannot be bias-free, value-free. His methods may be only a sophisticated ruse to hide these values, or to convince himself and other scientists that they have been superceded by an objectivity that is impossible to obtain. Rather, Pepinsky argued, the social scientist may be a better researcher, and certainly a more honest one, if he recognizes at the outset that he does have biases and values, and strives to identify these so that they may be put in proper perspective. This may be the start of an answer. Or, Pepinsky may have been getting soft and mellow, and perhaps we need more than ever before to make our quest for objectivity and for scientific rigor a real and honest one.

But a more mauldin kind of issue remains: our experimental subjects are not as acquiescent, not always as cooperative, as those experimental subjects -- college freshmen and sophomores in general psychology -- on which most of our modern psychology is based. We may have to find some reasonable and mutually acceptable ways of dealing with the new brand of issues they pose if we are to survive as experimental social scientists.

ED 075451

TM 002 528

THE SELF CONCEPT OF MENTAL RETARDATES:

SOME PROBLEMS OF ASSESSMENT

By

John L. Shultz
Athens Unit
Georgia Retardation Center

Where I'm Coming From.

In order for you to put the things I have to say this afternoon in their proper perspective it would seem appropriate for you to know something about me; my background, experience, and values. Given this information, it should be easier for you to decide on the amount of credibility you will give what I have to say.

I have been at the Retardation Center for about six weeks. Prior to this time my experience with people classified as "mentally retarded" consisted of incidental transactions with people who were just not as bright as others. My training has been primarily in Counseling Psychology and I have worked primarily in schools with children (from age six to whatever age graduate students are these days), staff members, and other adults such as parents, businessmen, etc. My interests have focused around social systems and their effect on the person. Towards this end I have done research in the area of self concept and taken post graduate training with the National Training Laboratories--Institute for Applied Behavioral Sciences.

As stated previously, I have had no work with people labelled "mentally retarded" prior to coming to the center. I have, however, had considerable work in, and study about, social systems. Therefore, what I speak from is a set of percepts derived from experiences and learnings, some archetypal and some recent, and mostly based on observations of and conversations with the staff at the Center. It should be noted (and I hope, heard) that my words are an attempt to describe, not evaluate! I am not setting myself up as some sort of critic of what I have been seeing and hearing--at least not yet.

My talk this afternoon will center around three topics. First, I will attempt to define what I mean when I am speaking of the self concept. Then I will talk about the ways in which self concept has been measured. Finally, I will attempt to describe the fit between what we know about the measurement of self concept and what seems to me to be implicit about the world of the "mentally retarded" person.

How is the Self Concept Defined?

There presently exists considerable confusion concerning the meaning of the term, "Self Concept." This confusion exists in the academic world as well as in the world of the applied practitioner. Most of you have probably been involved in meetings about individuals and their problems, usually called "case conferences." You may have heard participants make statements such as, "He has a lousey self concept!" or "He needs to improve his self concept." It is most difficult to ascribe meaning to this kind of statement. Perhaps the most that can be said is that the speaker apparently does not like something about the other person's behavior. They have chosen to couch their complaints against his "self concept" rather than his person or his behavior. (As if the three can be seperated!) I would imagine it is safer that way; particularly if you can use an "in" term such as "self concept."

Academia is no better off. Philosophers and scientists have been disagreeing for, literally, centuries about a definition of the self concept (Diggory, 1966). Carl Rogers has probably done more than anyone else in this century to both clarify and popularize the term, "Self Concept." When he was asked by the American Psychological Association to formulate a phenomenological theory of personality development, he wrote what was essentially a theory of the development of the self concept (Rogers, 1959). Rogers sees the self as a gestalt which, while not necessarily *in* awareness, *is available to* awareness. This issue of awareness is an important one and will be alluded to later. This is not the place to describe Rogers' theory about the development of the self concept. The only thing that will be mentioned is that this gestalt, the self, arises as a result of the person's transactions with significant others in his environment.

For our purposes this afternoon, self concept will be defined as Rogers has stated it: simply, "The person's view of himself" (p. 200). Operationally, this view manifests itself in any statements about oneself which use the pronouns "I" or "Me."

How is the Self Concept Measured?

The typical manner in which the self concept has been measured has been through paper and pencil tests, inventories, or check lists, or some kind of interpersonal interface between *S* and E. Tests which have been used often consist of a list of adjectives. The S indicates whether each adjective is "like" or "unlike" him. Inventories have also been used. These are usually a series of statements which S either a) arranges heirarchically in a normal distribution (called a Q sort), or b) indicates in some way the extent to which each statement is representative of him. In this case the subject is the expert concerning Ss self concept but he is limited to reacting to the particular adjectives or statements given him. Certain words which he might use to spontaneously describe himself may or may not be included in this list. In addition, the "average" person (derived from the norm group and with whom Ss responses will be compared) may or may not mean the same thing when he uses a particular word as the individual subject does.

In the interpersonal assessment, S may sit down with an interviewer (E) who conducts a structured or semi-structured interview designed to elicit self-report data. E may also use some other media, such as dolls or pictures of situations, to get a response from S concerning what the doll is like or what should be done in the pictured situation. These "games" tend to be vague and ambiguous in order that the S is forced to project his structure on the situation and thus reveal himself to E. In this case, E becomes the expert on Ss self concept; he interprets, from his own frame of reference, what S really meant when he said or did something.

In summary, the self concept is not a visible entity. It can only be inferred. There are two sources of data about the self concept: one is the subject, the other is the observer.

Each source has its own built in biases; with the subject, it is Ss "biased apperceptions" (Dreikurs, 1953). The observer also comes to the situation with his built in expectations which eventually surface as "projections." The issue for most researchers is called, "Whom do you trust?"

The issue for me is resolved by using the interview technique to elicit from the S, in their own idiosyncratic words, their "view of themselves." The rationale for this is very simple and perhaps best illustrated by what Humpty Dumpty said in Alice in Wonderland, "When I say a word, I mean what I say. No more, no less." It has been my experience (Shultz, 1965) that, given an opportunity to use their own words, Ss will not only produce material but clarify unclear areas when asked. This procedure is costly, in terms of money and manpower, but, given a decent relationship between interviewer and interviewee and a low threat situation, valid protocols tend to be obtained.

Some Generalizations Concerning the Mental Retardation Establishment

From the experiences of my first six weeks with the field of mental retardation I have drawn the following generalizations:

Generalization #1. Mental Retardation is an ascribed status with an elaborate set of roles.

To many this is obvious and certainly nothing new. Other writers (E.g., Mercer, 1972) have previously pointed this out. At our unit the process of identification of people as MRs is a complicated and involved process which involves input from psychological, medical, social service, and educational personnel. Once the person has been identified he is put into contact with the MR establishment; a rather complicated network of professional personnel who have dedicated a large part of their professional life to the assistance of MRs.

What are these people like? In the first place, they seem to be some of the most dedicated, hard working people I have ever met. They spend long hours working, planning, and implementing to bring about the smallest increments of change. Fantastically patient and disciplined! They also operate under what appears to me to be an unexplicated set of expectations--what I call the mythology of MR--which makes up the content of the next generalization.

Generalization #2. There is a kind of mythology implicit in caretakers behavior towards persons labelled MR.

This mythology takes the form of a set of underlying attitudes which seem to direct the expectations these personnel have about MR people. How much of this the establishment is aware of, I don't know. I do know that when I have probed these areas or attempted to get people to clarify some of the reasons for their behavior they have looked at me as though I were some kind of a nut. Regardless of the level of awareness, these axioms seem to underly much of the caretakers behavior:

1. If a person is incompetent intellectually, he is incompetent in all areas.

2. Any person identified as mentally retarded has to be sheltered from the real world.

3. A mentally retarded person can learn the same things that everyone else does. It just takes longer for him to do so.

4. It is appropriate that mentally retarded persons learn the same things that other folks do. (Here I am thinking of academic areas such as reading, math, etc.)

Supposing that you had transactions with people who had these kinds of attitudes about you. Assume further that your view of yourself was dependent to a large extent upon the reactions of others to you and your behavior. What do you suppose your self-concept would be like?

When I first came to the center I was told something that really stuck with me. This particular person, for whom I have considerable respect, said that the self concept of the MR was marked by "self devaluation" and "frustration proneness." In other words, MRs, in plain simple language, tend to put themselves down and also tend to become easily discouraged. Coopersmith (1967) maintains that there are only four sources of gaining self esteem or a positive prizing of oneself. These are through his own ability to 1) influence and control others (power); 2) successfully meet the demands of others for achievement (competence); 3) adhere to moral and ethical standards (worthiness), and; 4) receive the affection and attention of others (significance). Note that, given certain conditions, three of these sources (power, competence, and worthiness) can be accomplished by the person himself (of course with some recognition from significant others). On one of these sources, significance, he is completely dependent upon others for gratification. Apparently, we need other people for our esteem.

Now the person of whom I spoke maintained that MRs were easily discouraged and tended to put themselves down. If, as Coopersmith maintains, power, significance, competence, and worthiness are the sources of positive feelings about oneself; and, if one is dependent upon others in the environment for gratification of esteem needs; and, if the mythology of the MR is as I have described it, what else could one expect? The hallmark of the MR, as I have thus far seen him, is that he does get involved in control issues. In my life I have never seen so many power struggles as I have seen and heard reported for the past six weeks. Not only is the staff involved in these struggles with the children but parents also report the difficulty they have in controlling their children and the anger they experience in their transactions with them. Could it be that MRs do not want to be treated as inferiors? In my cosmology much of human behavior is explained as attempt to achieve importance in the eyes of others; to be seen as someone worthwhile. Is it possible that much of the struggle that goes on is an indirect attempt to change the mythology or rules that may be guiding the reactions of others to them, that may be keeping them inferior?

Problems in Assessing the MRs Self Concept

Jersild (1952) has postulated the existence of, what he termed, "a universal language of self." As he stated, "The choice of words changes, but feelings have an underlying meaning which is the same for the four-year-old and the eighty-year-old." (p. 31). He apparently sees this language unrelated to age, sex, socio-economic status, and IQ differences. It should be noted that when Jersild was talking about low IQ persons, he was talking about "slow learners", not mentally retarded persons. To my knowledge, no one has gathered data on the self concepts of mentally retarded youngsters and made the obvious comparisons with the self concepts of persons with more normal intelligence.

A number of questions need to be answered: questions such as, Does this "universal language" extend to the mentally retarded? Are MRs able to verbalize to another person with regards to their "view of themselves?" Can the mentally retarded population read well enough to use the tests that are presently available? How are MR responses or verbalizations different from the non-MR population?

Most of these questions are presently unencumbered by empirical data. They are being answered from a value position. We need these data. I hope to be able to gather some.

BIBLIOGRAPHY

Coopersmith, S. *The antecedents of self-esteem*. San Francisco: W.H. Freeman and Co., 1967.

Diggory, J.C. *Self-evaluation: concepts and studies*. New York: John Wiley and Sons, 1966.

Dreikurs, R. *Fundamentals of adlerian psychology*. Chicago: Alfred Adler Institute, 1953.

Jersild, A.R. *In search of self*. New York: Bureau of Publications, Teachers College, Columbia University, 1952.

Mercer, J.R. "IQ: the lethal label" *Psychology Today* Sept, 1972, *6*, 44-47, 95-97.

Rogers, C.R. A theory of therapy, personality, and interpersonal relationships, as developed in the client-centered framework. In Kock, S. *Psychology: a study of a science, Vol. 3* New York: McGraw-Hill, 1959.

Shultz, J.L. *A cross-sectional study of the development, dimensionality and correlates of the self-concept in school age boys*. Unpublished Ph.D. dissertation, The University of Iowa, 1965.

ED 075452
TM 002 529

Non-Cognitive Development of Mentally Retarded Children

Bert O. Richmond, University of Georgia

Many of the children identified as mentally retarded in schools exhibit skills that indicate they are not unable to cope with varied societal demands. According to reports of their teachers, friends, or parents, some of these pupils may be quite adept at social interaction, physical, artistic or other tasks. Although mentally retarded children seem to share a limited ability in academic achievement, they are not so homogeneous in other abilities. It is important for educators to understand the varied abilities of mentally handicapped children.

Much of the research dealing with the mentally retarded has focussed on intellectual abilities. However, many other abilities have been shown to be related to academic achievement, Torrance (1969), Damm (1970), and Christie (1970) stress the importance of creativity in education and as an essential ingredient in any individual's psychological well-being. Frequent reference is also made to the significant relationships between an individual's concept of self and his scholastic achievement. Buhler (1971) stresses the importance of an adequate self-concept and Mann (1969) reports evidence that the self-concept of mentally retarded pupils can be changed and that such change produces positive results in school.

Messer (1970) as well as other researchers have stressed the relationship of impulsivity to academic achievement. As might be expected, impulsivity seems to vary inversely with academic achievement.

The objectives of the research here were to examine the creative, self-concept, and impulsive characteristics of pupils. In addition, the performance of both TMR and EMR pupils on Piagetian tasks of conservation were examined and compared to age and intellectual development.

The first aspect of this research reports the divergent thinking production of pupils in classes for the educably mentally retarded. These pupils all scored from 50-75 on either the Stanford-Binet or Wechsler Intelligence Scales. The total sample consisted of 154 EMR children in one county. One-hundred and thirteen of these children were in special education classes in the public schools and the remaining 41 were in a special residential facility for EMR children. This special facility had both day and residential students who remain in the program for up to twelve months. Torrance Tests of Creative Thinking were administered to all pupils and then scored for the four factors of divergent thinking. These results are reported in Table 1.

TABLE 1

Mean Scores for EMR Pupils in Residential

And Regular School Classes

		Age	I.Q.	Fluency	Flexibility	Originality	Elaboration
Residential	M	11.77	61.70	11.93	7.69	11.97	23.16
(113)	SD	3.4	11.1	10.0	10.0	10.5	19.5
County Schools	M	13.49	64.81	17.86	13.47	22.96	32.74
(41)	SD	2.7	9.6	8.0	6.3	13.0	25.1
	†	2.92*	1.59	3.40*	3.46*	5.37*	2.48

*p ⟨.01

Table 2 presents the normative date for 7th grade pupils in regular classrooms (Torrance, 1966). The mean scores of the 154 EMR pupils in this study are inserted into this table in parentheses and are compared to scores of pupils with a similar mean chronological age. Creative thinking development does not always parallel educational experience so it seems more appropriate to compare the EMR child with another child near his own age.

TABLE 2

T-Scores for TTCT, Figural

Form A for 7th Grade Pupils

T-Score	Creativity Constructs			
	Fluency	Flexibility	Originality	Elaboration
95	49	37	69	226
80	39	29	54	175
65	29	22	40	124
50	20	14	26	73
	(17)	(12)		
45		12	21	56
			(20)	
40	13	9	17	39
				(30)
35	10	7	12	22
30	6	4	7	5

The results in Table 1 indicate several significant differences between the EMR population in special classes in the county schools and those referred to a special residential facility. The pupils in the county schools are significantly older and score higher in fluency, flexibility, and originality constructs of creative thinking. There is no significant difference between the two groups on intelligence or the elaboration construct of creativity. Considerable research with the TTCT indicates that creative thinking does not necessarily covary with age so it was not considered necessary to factor out the effect of age on the results of creativity scores obtained.

It is interesting that EMR pupils score between the 35th and 50th percentiles on the four constructs of figural creativity when compared with a group of their age-mates in the regular classroom. They are very near the mean in fluency and flexibility, near the 45th percentile in originality, and at approximately the 37th percentile in elaboration.

It may be helpful to consider a brief description of each of the constructs of creative thinking in order to assess the abilities of these EMR pupils.

Figural Fluency - this score is more an indication of the quantity rather than the quality of figural creativity. Even the banal thinker may make many responses regardless of quality. A low score may indicate blocking or low motivation.

Figural Flexibility - measures the individual's ability and willingness to view a problem or situation from many points of view.

Figural Originality - a high score usually requires the ability to delay gratification and is typical of one who sees unique and unusual solutions to problems.

Figural Elaboration - reflects the individual's ability to develop, enlarge upon, or otherwise elaborate ideas. High scores often reveal those who are sensitive in observation.

Data were also obtained to compare the self esteem of EMR children with children in other educational placements.

Group A consists of 34 children classified as educably mentally retarded with intelligence scores between 50 and 80 on the Stanford-Binet or Wechsler Intelligence Scales. All attend classes for the mentally handicapped in a separate building that is maintained through federal, state, and local funds. Children who live near the facility attend on a day-basis whereas those at a greater distance are assigned on a residential basis.

All children are expected to return to their own community schools within a one to two year period. These children receive a wide range of social work, psychological, recreational, and other services. The average age of this group of 34 EMR pupils is approximately 11 years.

Group B consists of all the black 5th and 6th grade pupils in two classes in an all-black school. These 34 pupils were in the separate classes of a small village prior to effective integration of schools in the southeastern portion of the U.S.

Group C consists of 32 black pupils who were assigned to 5th and 6th grade classes in an integrated school setting. In each class, black pupils constituted about one-half of the class members.

Group D consists of 31 6th grade white pupils in an all-white rural school. As with many schools in the rural, southeastern portion of the U.S., these pupils are lower to low-middle socio-economic status.

Group E consists of 31 5th grade white pupils in an all white suburban school. The majority of these pupils are of average or better socio-economic status and the children of business and professional people.

Pupils were selected because of their mean age of approximately 11 and all lived within a 100 mile radius of each other in a southeastern state. Data were collected about the third month of school at a time when racial integration in the schools had not been completely effected in this section of the state. This made it possible to compare differential perceptions of black pupils. No effort was made to control for intelligence but pupils in the last four groups were assigned to a regular group classroom and are assumed to have a mean intelligence score in the average range. The intelligence score limits for the mentally retarded children are indicated.

The SEI was group administered to each of groups B, C, D, & E. Each item was presented orally by the examiner and each child had a copy of the instrument on which to record his self-perceptions. Questions about the meaning of words in the instrument were minimal from these four groups but were answered by the examiner when raised. In administering the SEI to the EMR children, the examiner worked individually with each child or with a small group of two or three pupils in order to monitor more effectively the pupil's understanding and responses to items. The examiner followed the same administration procedure as with the groups of other children but was prepared to devote more time to getting the EMR child to comprehend. Six of the 40 EMR children gave incomplete responses to the SEI so only the 34 who completed the instrument were included in this study.

SEI data were obtained from each group of pupils and analyzed by ANOVA to determine significant differences among the groups. Results of ANOVA are as follows:

Sum Squares Total	31697.2196
Degrees of freedom	4

Mean Sum Within 146.9613

F-ratio - 14.6710 p .01

Table 3 contains the means and standard deviations for each group.

TABLE 3

Group Means and SD's on SEI

	Group A	Group B	Group C	Group D	Group E
Mean	54.9	65.6	52.3	62.8	72.5
Standard Deviation	9.4	9.1	6.3	17.9	14.8

The differences in SEI for pupils in the five groups are rather obvious from inspection of the data. The EMR pupils are similar to black pupils in newly integrated classes. With considerably higher scores in self-concept, are the white pupils in all-white, rural classrooms and the black pupils in all-black classrooms. The group with the highest level of self-esteem is the white, middle-class pupil in the all-white suburban classroom.

These findings suggest that children in EMR classes, in rural areas and those from minority groups have considerably lower estimates of self-worth than more advantaged children in middle class schools. Not only do these children seem to perform less well academically but they also reveal deficiencies in self-esteem.

There is a common view among many who work with mentally retarded pupils that these children tend to exhibit less impulse control. This conclusion might result from the research reported by Maccoby, et al. (1965) and by Massori, Hayweiser, and Meyer (1969) with preschool children. In both studies, significant correlations were found between intelligence and the ability to inhibit movement in simple motor tasks like the Draw-A-Line exercise.

However, there is opposing evidence that retarded children involved in a task tend to be compulsive and to persevere longer than children of average intelligence. Zigler (1958) reported experiments in which mentally handicapped children were more persistent than children of higher intellectual ability.

The following investigation of characteristics of mentally retarded children was designed to note the relationships among intellectual ability conservation skills, and impulse control. The subjects were 65 pupils in an MR setting of whom 44 were EMR and 21 were TMR. The age range of both TMR and EMR groups extended from about 8 to 16 years of age. EMR children had IQ scores between 50 and 80 and TMR children had scores of 50 or below.

Each pupil was administered an individual intelligence test (Binet or Wechsler), the Draw-A-Line task, and the Piagetian conservation tasks found in the Concept Assessment Kit by Goldschmid and Bentler (1968). Table 4 reports the results of the Draw-A-Line task for EMR & TMR pupils.

TABLE 4
Draw-A-Line

	TMR		EMR
$\bar{x}$	8.67		32.48
n	21		44
SD	6.70		31.69
SS Treatment	8059.25	DF Treatment	1
SS Within	44067.76	DF Within	63
SS Total	52127.01	DF Total	64
MS Treatment	8059.25	F-Ratio	11.52
MS Within	699.49		P .01

The anticipated positive relationship between impulse control and intellectual ability occurred for this sample of mentally retarded children.

Finally, correlation coefficients were computed to determine relationships among conservation, impulse control, and intelligence variables. These correlations are reported in Table 5.

TABLE 5

Relationships Among Conservation, Impulse Control,

And Intellectual Skills of Mentally Retarded Children

	Cons. A	Cons. C	I.Q.
D-A-L	.53	.44	.49
I.Q.	.46	.52	
Cons. A		.78	

It is interesting that performance of this sample of mentally retarded pupils reveals their abilities in each of these areas to be positively and significantly related. The more intelligent child has more impulse control, and greater skill in conservation tasks. Contrary to the findings of Goldschmid and Bentler (1968) the tasks in Conservation A and Conservation C groups do not differ significantly for this sample.

In summary, these attempts to understand more clearly the uniqueness of mentally retarded children have produced some tentative hypotheses:

1) EMR children express creativity in a fashion nearly as effective as that of children of higher intelligence. Also differential ability in creativity among EMR pupils seems related to their educational success.

2) EMR pupils exhibit lower estimates of self-worth than do more advantaged learners. However, EMR pupils may differ little in their level of self-concept from similarly disadvantaged pupils.

3) Among the mentally retarded children studied, impulse control appears positively related to intellectual ability.

4) For this sample of mentally retarded pupils, there were positive relationships between their performance on intellectual, conservation, and impulse control tasks.

In most instances reported here, the samples were small and selected from one state in the southeastern U.S. Further study needs to be undertaken before these findings can be generalized to other samples of MR children in other sections of the country. However, the modest relationships suggest clarification of some aspects of non-cognitive development in MR children. The results need now to be translated into meaningful improvements in the educational experiences of MR children.

REFERENCES

Buhler, C. Basic Theoretical Concepts of Humanistic Psychology. *American Psychologist*, 1971, *26*(4), 378-386.

Christie, T. Environmental Factors in Creativity. *Journal of Creative Behavior*, 1970, *4*(1), 13-31.

Damm, V. Creativity and Intelligence: Research Implications For Equal Emphasis in High School, *Exceptional Children*, 1970, *36*(8), 565-569.

Goldschmid, M.L. & Bentler, P.M. Manual for Concept Assessment Kit, San Diego: Educational and Industrial Testing Service, 1968.

Maccoby, E. E., Dowley, E. M., Hagen, J. W., and Degerman, R. Activity level and intellectual functioning in normal perschool children. *Child Development*, 1965, *36*(3), 761-770.

Mann, P., Beaher, J. & Jacobson, M. The Effect of Group Counseling on Educable Mentally Retarded Boys Self-Concepts. *Exceptional Children*, 1969, *35*(5), 359-366.

Massari, D., Hayweiser, L., and Meyer, W. Activity level and intellectual functioning in deprived preschool children. *Developmental Psychology*, 1969, *1*(3), 286-290.

Messer, S. Reflection-Impulsivity: Stability and School Failure. *Journal of Educational Psychology*, 1970, *61*(6), 487-490.

Torrance, E. P. Creative Positives of Disadvantaged Children and Youth. *The Gifted Child Quarterly*, 1969, *13*(2), 71-81.

Zigler, E. F., Hodgden, L., and Stevenson, H. W. The effect of support and non-support on the performances of normal and feeble-minded children. *Journal of Personality*, 1958, 26, 106-122.

ED 075453

TM 002 530

ELEVENTH ANNUAL SOUTHEASTERN INVITATIONAL
CONFERENCE ON MEASUREMENT IN EDUCATION

December, 1972

Ernest L. Bundschuh
Coordinator of Physical Activity
Athens Unit, GRC
Associate Professor
Division of Health, Physical Education, and Recreation

Susan J. Gooch
Director of Recreation Therapy
Athens Unit, GRC

ASSESSMENT OF MOTOR LEARNING THROUGH MATHEMATICAL ANALYSIS

Mathematical analysis of learning scores already has been reported where detailed procedures utilized in development of methodology and the obtainment of results involved have been thoroughly discussed (Bachman, 1961:123-37). The purpose of the present discussion is to describe the general derivation of mathematical concepts underlying motor learning.

The basic assumption is that motor learning behaves exponentially when described as a function of practice time. It is assumed that motor learning will continuously taper off (minimizing errors) with increased practice and eventually approach an asympote. Although many mathematical functions may describe this tapering off, previous experiences, both theoretical and experimental, have demonstrated that exponential function has been most appropriate for describing motor learning. More specifically, it is assumed that the performance score, Y_n, at any trial n is given by the formula

$$y_n = c+a_o.e^{-k(n-1)}$$

where c is the performance at the asymptote or plateau, k is the rate constant, and e is the natural log base 2.718. Here, a_o, is interpreted as the amount of learning, and k, which is the $\log_e$ of the ration $y_n + 1$ divided by y_n for any trial n, gives the rate of learning.

The standard graphical method employing semilogarithmic paper is utilized to fit exponential curves to the data. The following sequence is employed in obtaining a curve analysis of the data:

1. The performance data is plotted on coordinate graph paper.
2. The asymptote, c, is estimated and the data is "normalized" by substracting the asymptote value, c, from each of the particular scores.
3. These "normalized" points are plotted on semilogarithmic graph paper, and the line best fitting these "normalized" points is determined.
4. Steps 1 and 2 are repeated with several estimations of the asymptote until the line that least deviates from the "normalized" data is determined.
5. The constant a_o is read as the y intercept of the line of best fit. Also the time, $t_{1/2}$ at which $y = 1/2.a_o$ is determined graphically. The constant k is computed from the equation:

$$k = .693/t_{1/2}$$

6. The exponential curve corresponding to this line is drawn on coordinate graph paper by plotting the points y_n, where y_n is the sum of the asymptote, c, and the functional values from the line of best fit for each trial.

An example of the computations for the derivation of the learning curves is given in the summary tables. The first line presents the mean recorded scores. The second line lists the "normalized" points; that is, the points obtained by recorded values minus the value at the asymptote. The intercepts of the line of best fit is given in the third line. The fourth line represents the differences between the second and third lines. The values $t_{1/2}$ and a_o are read from the graph, whereby k is computed from the equation

$$k = .693/t_{1/2}$$

The fitting error, E, for each group is computed as the ration of the average difference between the fitted and recorded points, S/10, and the learning score, a_o; thus, deriving the equation:

$$E = S/10a_o$$

where S is the sum of errors in the fourth line. Finally, the points of the fitted curve, that is, the points obtained by adding the value of the asymptote to the intercepts listed in the third line, is recorded in the last line of the tables.

EXAMPLE SUMMARY OF COMPUTATIONS FOR DERIVATIONS OF LEARNING CURVES FOR AGE LEVELS

7 TO 10

AGE LEVELS	TRIALS									
7 and 8 Age Group	1	2	3	4	5	6	7	8	9	10
Recorded	199.5	168.3	191.5	185.8	192.6	174.5	192.5	182.2	164.3	170.2
Normalized (Asymptote 160)	39.5	8.3	31.5	25.8	32.6	14.5	32.5	22.2	4.3	10.2
Intercepts	40.0	35.0	31.1	26.0	22.8	19.6	17.0	14.7	12.8	11.0
Differences	0.5	26.7	0.4	0.2	9.3	5.1	15.5	7.5	8.5	0.8
Fitted	200.0	195.0	191.1	186.0	182.8	179.6	177.0	174.7	172.8	171.0
	$t_{1/2}=4.8$		$k=.693/_{4.8}=.144$		$a_o=40.0$		$E=7.5/_{40}=18.7\%$			$S=75.0$
9 and 10 Age Group										
Recorded	156.8	160.3	152.0	159.0	148.2	150.0	136.7	124.8	145.7	129.7
Normalized (Asymptote 120)	36.8	40.3	32.0	39.0	28.2	30.0	16.7	4.8	25.7	9.7
Intercepts	42.0	36.8	32.0	27.5	24.0	20.9	17.9	15.3	13.6	11.8
Differences	5.2	3.5	0.0	11.5	4.2	9.1	1.2	10.5	12.1	2.1
Fitted	162.0	156.8	152.0	147.5	144.0	140.9	137.9	135.3	133.6	131.0
	$t_{1/2}=4.8$		$k=.693/_{4.9}=.141$		$a_o=42.0$		$E=5.87/_{42}=14.1\%$			$S=59.4$

ED 075454

TM 002 531

ELEVENTH ANNUAL SOUTHEASTERN INVITATIONAL
CONFERENCE ON MEASUREMENT IN EDUCATION

December 1972

Review of Motor Development, Perceptual-Motor and Physical Fitness Testing

Bundschuh, E., Metts, S., Henderson, W., and Tidwell, W.

University of Georgia

Motor Development

The Denver Developmental Screening test (Frandenburg, W. Dodds, J. and Fandal, A.; University of Colorado Medical Center, 1970 edition) is a multi-item test in four basic areas: gross motor, fine motor, language and social. The test is standardized and supplies normative data of children to six years of age. Professionals and others can be trained in test utilization and interpretation of results encompassing delays in development.

The Bayley Scales of Infant Development (the Psychological Corporation, 1959, N.Y. N.Y.) encompasses three areas. The motor scale yields a Psychomotor Development Index. For the retardate, motor age equivalents can be derived. Testing ranges to 2.5 years of age.

The Dayton Sensory Motor Awareness Survey (William Braley, Dayton Public Schools, 348 W. First Street, Dayton, Ohio) consists of fifteen simple items including rhythm, balance, space direction, body image, coordination, and form perception. The test is used with four and five year old children and may be administered individually by classroom teachers in less than fifteen minutes per student.

The Minnetonka Physical Performance Readiness Test (Harold Melby, Groveland School, 3325 Groveland School Road, Minnetonka, Minnesota) evaluates hand-eye coordination, balance, agility, and accuracy of body placement of five to seven year olds. The classroom teacher may give the test which is administered in groups of four or five.

The Trainable Mentally Retarded Performance Profile (Reporting Service for Exceptional Children, 563 Westview Avenue, Ridgefield, New Jersey, 07657) is an evaluation scale using teacher observation and graphic indications of the present status of a child. The profile constitutes areas of social behavior, self-care, communication, basic knowledge, practical skills and body usage. Body usage is divided into coordination, health habits, fitness, and eye-hand coordination. The profile provides periodic measure of child against self, not comparison with others.

The Special Diagnostic Battery of Recreative Functioning for the Trainable Mentally Retarded (Jean Mundy, Department of Recreation, Florida State University, Tallahassee, 32306) measures an individual's abilities, skills and competencies needed for different recreational and daily living activities. Task items enable the battery to be utilized with severe and profound retardates.

The Lincoln-Oseretsky Motor Development Scale (Sloan, William. Lincoln-Oseretsky Motor Developmental Scale. Chicago, Illinois: Charles H. Stoelting Co., 1954) is a principal research tool used to investigate motor performance ability between the ages of six and fourteen. The Lincoln Revision of the Oseretsky Motor Development Scale consists of thirty-six items taken from the original eighty-six item scale to measure gross and fine motor coordination.

The Berk-Oseretsky Adaptation of the Lincoln Adaptation includes the same tests, but adapted as to instructions, performance of the items, and equipment needed for testing.

The original Oseretsky Tests of Motor Proficiency proposed to identify six areas: motor speed, general dynamic coordination, simultaneous voluntary movements, general static coordination, dynamic coordination of the hands, and synkinesia. Present research does not indicate seperation into subtests. The present adaptation (enclosure) emphasises balance, gross and fine motor movements. Inherent within many of the test items are parameters dealing with speed, dexterity and rhythm.

The "test of Motor Impairment" (Stott, D.H., Brook Educational Publishing Limited, P.O. Box 1171, Guelph, Ontario, Canada, 1972) is also an attempt to improve the Oseretsky. A forty-five item test with age-standardization. This is infered as a test for neural dysfunction.

Perceptual-Motor

The Marianne Frostig Developmental Test of Visual Perception (Frostig, M. D. Horne, The Frostig Program for Development of Visual Perception. Chicago: Follett Publishing Co., 1964) yields data for independent development of five visual perception abilities. These are eye-motor coordination, figure-ground, constancy of shape, spatial relations, and position in space. This test was developed for use with three to seven year old children. It can be administered individually by the teacher with little equipment.

The Pontiac Kindergarten Perceptual Motor Screening Test (Lee Haslinger, Pontiac School District, 350 Wide Track Drive, East Pontiac, Michigan) was developed for use with children four to six years old. The classroom teacher can administer this individually in approximately five minutes per pupil. A balance beam, a mat, and a pillow are necessary for administering the six test items: balance, strength, jumping, skipping, and refined muscle coordination.

The Project Genesis Perceptual Motor Screening Test (Dorothy Jens, Lakeview Public Schools, 25901 Jefferson, St. Clair Shores, Michigan) involves judgement on the quality of general performance on a battery of twenty-eight items. The test takes approximately fifteen minutes and uses only balls and a target as equipment. The test is for children five to seven years old.

The Rail Walking Test developed by Roy Heath (Department of Psychology, Trinity College, Hartford, Connecticut, 06106) was designed to test locomotor coordination. Further information is found in the American Journal of Psychology, 1942 and 1944, and in the Psychological Bulletin, 1943.

The Purdue Perceptual-Motor Rating Scale (Charles E. Merrill Books, Inc., 1966) is divided into eleven subtests each measuring some aspect of perceptual-motor development. Basically the survey subtests are divided into three major sections: (1) laterality, (2) directionality, and (3) perceptual-motor matching. The survey was designed to test errors in perceptual-motor development. A qualitative scale designates areas for remediation, not diagnosis.

Physical Fitness

Kraus-Weber Tests of Minimum Muscular Fitness. (Research Quarterly, 25: 178-188, May 1965). Evaluates strength and flexability in various parts of the body; specifically abdominal and psoas muscles, upper and lower back muscles, and hamstring muscles.

Physical Fitness for the Mentally Retarded. (Recreation Center for the Handicapped c/o Little Grassy Facilities, Southern Illinois University, Carbondale, Illinois 62901). A battery of eight test items. Each test item applies to one of the four main muscle groups and one test measures overall organic fitness or the cardiorespiratory fitness of the individual.

Physical Fitness Test Battery for Mentally Retarded Children. (School of Physical Education, University of Connecticut, Storrs, Connecticut 06268). A six-item test battery that can be used for EMR or TMR, with norms for each. No memorization required and a very low rate of failure, thus eliminating intellectual factors as an outside influence.

Special Fitness Test. (American Association for Health, Physical Education, and Recreation, 1201 Sixteenth Street, N.W., Washington, D.C. 20036). An extension of the AAHPER Youth Fitness Test (mentioned below). Three of the items on the test have been modified. Standards are based on norms of a large sample of EMR children.

Youth Fitness Test. (American Association for Health, Physical Education, and Recreation, 1201 Sixteenth Street, N.W., Washington, D.C. 20036). This seven-item test battery can be used with the EMR's but not the TMR's. To be used effectively, the children should be given a planned, regular, and progressive physical education program.

ED 075455

TM 002 532

PHYSICAL EDUCATION/RECREATION

BASE LINE DATA EVALUATION

Children's Physical Developmental Scale

Name______________________________ D.O.B.________________

Time______________________________ Date________________

Raw Score______________ Denver Test________________

Normative Score__________ Oseretsky Test______________

1. Overview:

2. Physical Status:

3. Comments:

Examiner______________________

Name________________________________ Sex______________ Date______________

ITEM	DESCRIPTION OF ITEM	TRIALS	SCORE
1.	STANDING ON DOMINANT FOOT EYES OPEN criteria: remain motionless 10 sec. foot against knee, hands on thighs	2	_____
2.	STANDING ON NONDOMINANT FOOT EYES OPEN criteria: remain motionless 10 sec. foot against knee, hands on thighs	2	_____
3.	STANDING HEEL TO TOE EYES CLOSED, FEET ALIGNED criteria: a) remain motionless for 15 sec. b) must keep eyes closed during performance	1	_____
4.	STANDING DOMINANT FOOT EYES CLOSED criteria: a) position as in item #1 except eyes closed, maintained for 10 sec. b) must not remove hands from thighs or stand on tip toe	1	_____
5.	STANDING NON DOMINANT FOOT EYES CLOSED criteria: a)position an in item #1 except eyes closed, maintained for 10 sec. b) must not remove hands from thighs or stand on tiptoe	1	_____
6.	TOUCHING FINGERTIPS DOMINANT HAND criteria: a) touch fingertips to thumb of same hand in succession and in reverse order. b) 5 sec. time limit. c) must touch each finger separately in correct order without skipping.	2	_____
7.	TOUCHING FINGERTIPS NONDOMINANT HAND criteria: a) touch fingertips to thumb of same hand in succession and in reverse order. b) 5 sec. time limit. c) must touch each finger separately in correct order without skipping.	2	_____
8.	BALANCING ROD CROSSWISE ON INDEX FINGER DOMINANT HAND criteria: a) start time when stick is correctly balanced. b) must maintain balanced position for 10 sec.	3	_____
9.	BALANCING ROD CROSSWISE ON INDEX FINGER NON DOMINANT HAND criteria: a) start time when stick is correctly balanced. b) must maintain balanced position for 10 sec. without use of other hand.	3	_____

ITEM	TRIALS	SCORE
10. TRACING MAZES DOMINANT HAND	1	____
criteria: a) must not turn paper. score depends on time required to complete maze plus 5 sec. for each error. An error consists of crossing (not touching) a boundary line. b) maximum passing score: 50 sec.		
11. TRACING MAZES NON DOMINANT	1	____
criteria: a) must not turn paper. score depends on time required to complete maze plus 5 sec. for each error. An error consists of crissing (not touching) a boundary line. b) maximum passing score: 80 sec.		
12. WALKING BACKWARDS	2	____
criteria: walk backwards two yards, heel to toe, not deviating more than one foot laterally in either direction. arms may not be used for balance.		
13. JUMP INTO AIR, 180° TURN, LAND ON TIPTOES, HOLDING BALANCE	1	____
criteria: must jump into air make an about face, landing on tip toes hold balance, remaining on tip toes for 3 sec.		
14. JUMPING AND TOUCHING HEELS	1	____
criteria: jump and simultaneously strike heels with corresponding hands. (right hand to right heel)		
15. WINDING THREAD DOMINANT HAND	1	____
criteria: a) spool must be held steadily in non-dominant hand while winding thread. b) thread must be wound in under 20 sec.		
16. WINDING THREAD NON DOMINANT HAND	1	____
criteria: a) spool must be held steadily in dominant hand while winding thread. b) thread must be wound in under 25 sec.		
17. DRAWING LINES DOMINANT HAND	2	____
criteria: a) perpendicular lines drawn between horizontal lines on paper must touch but not cross horizontal lines (within 1/8 inch deviation). b) draws as many as possible in 15 sec. c) score is mean of 2 trials. minimum of 10 lines to pass.		
18. DRAWING LINES NON DOMINANT HAND	2	____
criteria: a) perpendicular lines drawn between horizontal lines on paper must touch but not cross horizontal lines (within 1/8 inch deviation). b) draws as many as possible in 20 sec. c) score is mean of 2 trials. minimum of 10 lines to pass.		

ITEM	TRIALS	SCORE
19. PUTTING COINS IN BOX DOMINANT HAND criteria: a) must place (not throw) coins into box one coin at a time with fingers of dominant hand. b) time limit is 15 sec., score is the number of coins correctly placed. c) minimum score of 11 coins to pass.	1	____
20. PUTTING COINS IN BOX NON-DOMINANT HAND criteria: a) must place (not throw) coins in box one coin at a time with fingers of non-dominant hand. b) time limit is 15 sec., score is number of coing correctly placed. c) minimum score of 11 coins to pass.	1	____
21. TAPPING RHYTHMICALLY WITH FEET AND FINGERS criteria: a) must maintain rhythm S establishes. b) synchronously tapping the right foot;right finger and left foot; left finger. c) 20 sec. minimum to pass.	1	____
22. PUTTING MATCHSTICKS IN BOX criteria: a) must place (not throw) two sticks, one in each hand, simultaneously and in rhythm. b) not meeting criteria constitutes an error. c) 5 sec. added to score for each error. d) score is time to pick up all sticks. e) 22 sec. maximum to pass.	1	____
23. TAPPING FEET AND FINGERS criteria: a) taps feet and index fingers in rhythm of S choice. b) table tapping of fingers simultaneous to timing of right foot. c) maintains rhythm. d) 20 sec. minimum to pass.	1	____
24. CLOSING AND OPENING HANDS ALTERNATELY criteria: a) keep arms extended. b) must alternately open and shut hands. c) make no unnatural facial movements. d) perform for 10 sec.		
25. MAKING A BALL DOMINANT HAND criteria: a) stop test in 10 sec. (maximum). b) ball of paper must be made with fingers not hand. c) ball should be fairly perfect and compact.	2	____
26. MAKING A BALL NON-DOMINANT HAND criteria: a) stop test in 12 sec. (maximum). b) ball of paper must be made with fingers of hand. c) ball should be fairly perfect and compact.	2	____

ITEM	TRIALS	SCORE
27. FOOT EXTENSION AND FLEXION	2	____

criteria: alternate extension and flexion of each foot at tibia-tarsal joint. b) must hold legs 25 cm from floor. c) flexes and extends first one foot then other 5 times each foot, holding other foot motionless but raised. d) must perform with both feet successfully to pass. e) may not make facial movements.

Total Score (27 max.) ____

Normative Score ____

ED 075456

Evaluating Achievement of the Mentally Retarded: A Comprehensive Process

Andrew L. Shotick, Associate Professor
University of Georgia

Achievement testing has several purposes: a measure of attainment of specific skills or knowledges, a measure of level of attainment in particular areas of study, or a measure of some composite level of attainment in a number of areas of study, i.e. grade level. Measurement *per se*, however, is not the ultimate aim of achievement testing; it is, rather, the meaning of this measurement which is paramount. Uses may be made of these measures to indicate a degree of competency for utilitarian purposes; to indicate attainment at one level so that subsequent instruction at a higher level may take place; or to give a grade indicating the degree of competency achieved.

Measurement by a qualified examiner attending to such matters as rapport and using valid and reliable instruments provides an appraisal of the attainment of the individual in the areas first identified above. In the areas of use or application, however, certain reservations may be necessary. As Broom (1939) pointed out years ago, the test may show what was attained but not necessarily " how or why" it was attained.

The generalization of results, i.e., the predictability for utilization of competence or success in instruction at a higher level, is dependent not only upon present status but factors which influence attainment of that status such as comparability of past experience of those tested and factors influencing performance during the actual testing situation.

TM 002 533

In standardized tests independent variables are often controlled through selection of a normative sample which includes these variables. They are then assumed to be distributed throughout the population.

However, when testing one segment which may have unique consideration or contribution to a population, such as the mentally retarded, it is questionable, if not wholly inappropriate, to assume comparability of results to that normative sample. It is one issue to include mentally retarded in a normative population to develop a random sample, but unless one has used sophisticated statistical analyses to identify the particular factors of variances which this group has contributed to the results, one should not generalize to the mentally retarded as a group.

There are several factors which probably should be considered when giving thought to academic achievement testing and the mentally retarded. The first question might be who is included (in a normative sample) for example? Does it refer to those identified by Heber (p. 3) and defined as those "with subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behavior"? or those discussed by this writer, Shotick (1965) in an earlier paper as identified by Cruickshand (1961) with behavioral concomitants of brain-injury-hyperactivity; or those with attitudes, behaviors, and experience deficits noted by Sarason (1949) as familial or "garden variety" mentally retarded; or those by Goldstein and Seigle (1958) with frustration-proneness and self-devaluation because of past failure; or those who now receive appropriate developmental experiences by being placed early in special class; or is it those mentally retarded children and youth who fit into more than one of the above conditions; or others with conditions which have or have not been identified.

Literally, for achievement purposes, mentally retarded individuals probably differ from one another as much as they do from the non-retarded. Thus, to include as mentally retarded those with below average intellect in a normative sample may or may not include a distribution of all those who may be mentally retarded.

Some Variables of Achievement

Is there any reason to assume that the use of standardize tests with the mentally retarded would be invalid or unreliable as predictors of future academic performance? Researchers have often reported significant correlations between some of the different tests used to predict achievement and the actual level of academic performance. For example; Mueller (1969) reported that the Primary Mental Abilities Test, the Pictorial Test of Intelligence, and the Illinois Test of Psycholinguistic Abilities were reliable predictors of future performance in EMR students, and in fact, surpassed the Stanford-Binet as a predictor. Findings such as these have often been interpreted as supporting the use of these tests as predictors. On the other hand, Conklin and Dockrell (1967) stated that IQ alone seldom accounts for more than 50 percent of the variance in academic achievement and that the remaining variance can be accounted for by personality and motivational factors. It is the non-intellect variables that lead this writer to suggest that results obtained from such tests should be viewed with great caution if they are to be used as a predictor of future achievement for a mentally retarded individual.

Goldstein and Seigle (1958) reported that retardates have a higher expectancy for failure than normals and therefore approaches by retardates are often directed towards avoiding failure rather than achieving success. Because of extensive past experience of failure, the individual either anticipates failure or is unable to predict success and in an effort to prevent failure and thus, to preserve self-integrity, declines to participate or respond. In an achievement testing situation this lack of a response is an incorrect response. Cromwell (1963 p. 87) reported research pertinent to postulations in this area with a much more guarded conclusion, "Stronger avoidance tendency was sometimes but not always shown by retardates". Furthermore, Sheila (1968) proposed that the expectancy for failure that is experienced by the mentally retarded individual results not only from past experience but also from a teacher's expectations of success or failure which may be transmitted to the student unconsciously. This would suggest that the mentally retarded individual's potential for classroom performance as predicted by an achievement test may in fact be realized as a result of something as subtle as the Rosenthal Effect.

The effect of motivational differences in relation to academic performance has been investigated by Haywood (1968). His results indicated that motivational orientation was not a significant factor in the performance of individuals in the superior IQ range but was for EMRs. He did indicate that mentally retarded individuals with a high degree of intrinsic motivation out-performed the individuals with less intrinsic motivation. This would suggest that an individual's motivational orientation should be integrated into any attempt to predict his future performance, particularly if the individual is mentally retarded.

Many other non-intellect variables have been shown to be involved in the level of academic performance in retardates. For example, Schwartz and Shores (1969) reported that middle-class mentally retarded individuals demonstrated a higher level of achievement than those from lower socio-economic classes, and that this difference increased as a function of age. They concluded that the increase in the difference between achievement levels was most likely a result of differential expectations on the part of the child's culture. Another example of the importance of non-intellect variables in relation to the prediction of achievement was reported by Shipe (1971). Shipe concluded from her results that personality variables such as "impulsivity" and the "sense of control over one's destiny (locus of control)" should be considered as a possible indicator of an individual's future academic performance.

It would appear that in addition to the impact reduced intellect has on achievement, it may also, through impact on the motivational development of the person, have some bearing on performance of the individual in the testing process itself.

Curriculum and Achievement Tests

Another area of caution arises concerning the comparability of results of testing and the use of those results. The first concern of this writer is the means by which the achievement was attained. Students in general education proceed through graduated sequences of arranged learning experience. Thia arrangement provides basically for a vertical hierarchy of difficulty. Standardized achievement test items are included to sample attainment across this hierarchy with correct responses providing a quantitative contribution to determination of level of performance. A subject may correctly compute 2 + 2 and 19 - 8. In such a system the assumption is made that the response to particular items adequately samples the subjects total response capability.

In the past few years several writers (Dunn, 1968, Johnson, 1962) have raised questions concerning the effectiveness of special classes, with particular reference to, and using data from, measurement of academic achievement. Kolstoe (1972) responded to some of these criticisms pointing out that special classes often place emphasis on activities other than academic achievement.

Secondary school classes (junior and senior high school) often emphasize activities of a pre-vocational and vocational nature (how to get and hold a job including specific behavioral referrents); utilization of meaningful activities and resources (catalogs, telephone books, bank accounts, community services such as hospitals, social security agencies, etc.); and driver training. There are knowledges that may not be reflected in achievement tests.

Another pattern of instructional organization which may not be adequately reflected in the results of a standardized achievement test is teaching by teacher constructed units. In such a program, content is selected and intergrated around some central theme. The particular academic processes may very well represent a lateral rather than a vertical level of learning. Such increments of increase in performance are not as likely to be represented standardized achievement testing devices.

Remediation is another emphasis in special education classes which may not be adequately discerned from a standardized achievement test. Mentally retarded children and youth often spend 2 - 4 or more years in regular classes prior to placement in special education classes. During that time they will have learned some arithmetic computation and comprehension, some reading word attack skills and comprehension, and some language. However, they will not have attained effective mastery of particular grade levels. Thus they may be able to respond to items at several grade levels of difficulty and receive a grade level placement but which in meaning differs from someone proceeding evenly through developmental learning levels.

Special education teachers, recognizing this performance, will stress remediation to complete gaps in concepts, knowledges, and skills. Thus, again, lateral achievement may be taking place but is not reflected because items of greater difficulty are not being passed and additional quantitative units are not obtained. Learning will have occurred but the achievement test may not show it.

Discussion

The purpose of this paper _is not_, repeat, _not_ to recommend disuse of standardized achievement tests. It is rather to emphasize their use within full realization of their purposes, capacities, and limitations.

One such purpose, is to measure status or growth (or decrement) as a result of instructional programs. In such cases the question of appropriateness should consider the nature of the content of the program, the effectiveness of instruction, and of course, status and maturation of the learner. Alternative methods of testing may include teacher constructed devices, unit tests accompanying commercial textbook series, or a standardized test. The major consideration is the value of the instruction program for the learner. Has it been effective for him? Is the content of the instructional program adequately represented by the specific test? Is the pattern of achievement of the learner comparable to that of the normative sample? Are their behavioral factors which might negatively influence the performance of the subject?

A second situation involves evaluating achievement of students with remediation needs and also has several alternatives. For example, in the area of reading the Informal Reading Inventory is used. Remediation is very specific and measurement of attainment of a specified behavioral objective (as delineated by the clinician) is in itself an achievement measure. There are, of course, several standardized tests to identify specific deficiencies and results of follow-up instruction. The major purpose in selection of instrumentation for remediation is to choose a means which will measure the effect of the treatment.

Comparison of achievement of the mentally retarded to the non-mentally retarded should include a statement of the purpose for that comparison, a detailing of variables which may influence achievement for that purpose, and selection of instruments and subjects which provide for the variance specific to the issue.

BIBLIOGRAPHY

Broom, M. E. *Educational measurements in the elementary school*. New York: McGraw-Hill Book Co., Inc., 1939.

Conklin, R. C., & Dockrell, W. B. The predictive validity and stability of WISC scores over a four year period. *Psychology in the Schools*, 1967, *4*, 263-266.

Cromwell, Rue L. A social learning approach to mental retardation. In N. R. Ellis (Ed.), Handbook of *mental deficiency*. New York: McGraw Hill Book Co., 1963.

Cruickshank, William M., et al. *Teaching method for brain-injured and hyperactive children.* Syracuse: Syracuse University Press, 1961.

Dunn, Lloyd M. Special education for the mildly retarded--Is much of it justified? *Exceptional Children*, 1968, *38*, 527-535.

Goldstein, Herbert and Seigle, Dorothy. *A curriculum guide for teachers of the educable mentally handicapped.* Springfield, Illinois: Superintendent of Public Instruction, Circular Series B-3, No. 12, 1958.

Haywood, H. E. Psychometric motivation and the efficiency of learning and performance in the mentally retarded. In: Richards, B. W., ed. *Proceedings of the First Congress of the International Association for the Scientific Study of Mental Deficiency,* held Montpellier, France, September 12-20, 1967. Surrey, England, Michael Jackson Publishing, 1968, p. 276-283.

Heber, Rick A manual on terminology and classification in mental retardation. *Monograph Supplement to the American Journal of Mental Deficiency,* Second edition, 1961.

Johnson, G. O. Special education for the mentally-handicapped-a paradox. *Exceptional Children,* 1962, *29*, 62-29.

Kolstoe, Oliver P. Programs for the mildly retarded: A reply to the critics. *Exceptional Children,* 1972, *39,* 51-56.

Mueller, M. W. Prediction of achievement of educable mentally retarded children *American Journal of Mental Deficiency* 1969, *73*, 590-596.

Sarason, Seymour B. *Psychological problems in mental deficiency.* New York: Harper and Brothers, 1949.

Schwarz, Robert H., & Shores, Richard E. The Academic achievement of EMR students and social class. American Journal of Mental Deficiency, 1969, 74, 338-340.

Sheila, M. When you wish upon a star: The self-fulfilling prophecy and special education. Education and Training of the Mentally Retarded, 1968, 3 (4), 189-193.

Shipe, Dorothy Impulsivity and locus of control as predictors of achievement and adjustment in mildly retarded and borderline youth. American Journal of Mental Deficiency, 1971, 76, 12-22.

Shotick, Andrew L. Programming for the retarded. The Reporter, 1965, 16, 4-7.

ED 075457

TM 002 534

MEASUREMENT AND TESTING
CONSIDERATIONS FOR NATIVE AMERICAN EDUCATION

Presented

At the 11th Southeastern Invitational Conference on

Measurement in Education

University of Georgia

December 8-9, 1972

by

Joseph D. Blanchard
Psychologist

Bureau of Indian Affairs

Indian Education Resources Center

Division of Student Services

P.O. Box 1788

Albuquerque, New Mexico 87103

TABLE OF CONTENTS

Page No.

PURPOSE. 1

SCOPE. 1

GUIDELINES AND ASSUMPTIONS 2

STUDENT TESTING AND PROGRAM EVALUATION 4

TESTS AND INDIAN EDUCATION OBJECTIVES. 6

TESTING AS FEEDBACK. 7

TESTS AND STUDENT RIGHTS 10

  Multiple Approaches to Behavior Sampling. 11
  The Indian Student, Human and Civil Rights. 12
  The Use of Criterion Referenced Tests 15

THE RELATIONSHIP OF TESTS TO SOCIAL VALUES 17

  Fundamental Postulate 21
  Social Policy Corollary 22
  Human Potentiality and Actuality. 22
  Absolutism as Irrational Defense Corollary. 24
  Questionable Validity Corollary 25
  Testor Character and Training Corollary 26
  English Language Corollary. 28
  Law of Multiple Effect Corollary. 29

TESTING POLICY FACTORS 31

  Introduction. 31
  The Indian Student as Culturally Dependent. 41
  The Indian Student as Developmentally Human 43
  English Language Proficiency. 45
  Bilingual/Bicultural Programs 47
  The Requirement for Special Training and Personnel Requirements for Testing. 48
  The Requirement for a BIA-wide Policy 50

CONCLUSION 51

BIBLIOGRAPHY 53

TESTING AND MEASUREMENT

PURPOSE

This document presents some of the general considerations and requirements for the establishment of a testing policy and procedures for a large education system. Such a testing policy is considered necessary to the establishment of a common understanding of the position of testing in the education program, the facilitation of the use of tests for academic gain, and, most importantly, to provide for the protection of the civil and legal rights of all students and minority group students in particular in accordance with the Constitution of the United States and the precedents established by the judicial system.

SCOPE

Testing is a formalized aspect of the measurement of behavior. Testing is usually performed at specified times under specifiable conditions to provide a means for students, teachers, and other concerned parties to arrive at common judgements concerning the behavior or performance of a student in relation to behavioral objectives and educational goals which are keyed to curriculum content. Testing is a formalized procedure for the sampling of behaviors which are construed to be representative of a population of behaviors which define specified skills and knowledges. Measurement, and more specifically testing, as used herein shall be an integral aspect of educational goals in all three domains: Cognitive, Affective, Psychomotor. Measurement, testing, as used herein shall be limited to the sampling of the behavior of students. Testing shall be limited in amount, frequency, and duration to that which is required to provide optimal visibility and feedback to the student concerning his current status and relative progress in the achievement of his educational goals.

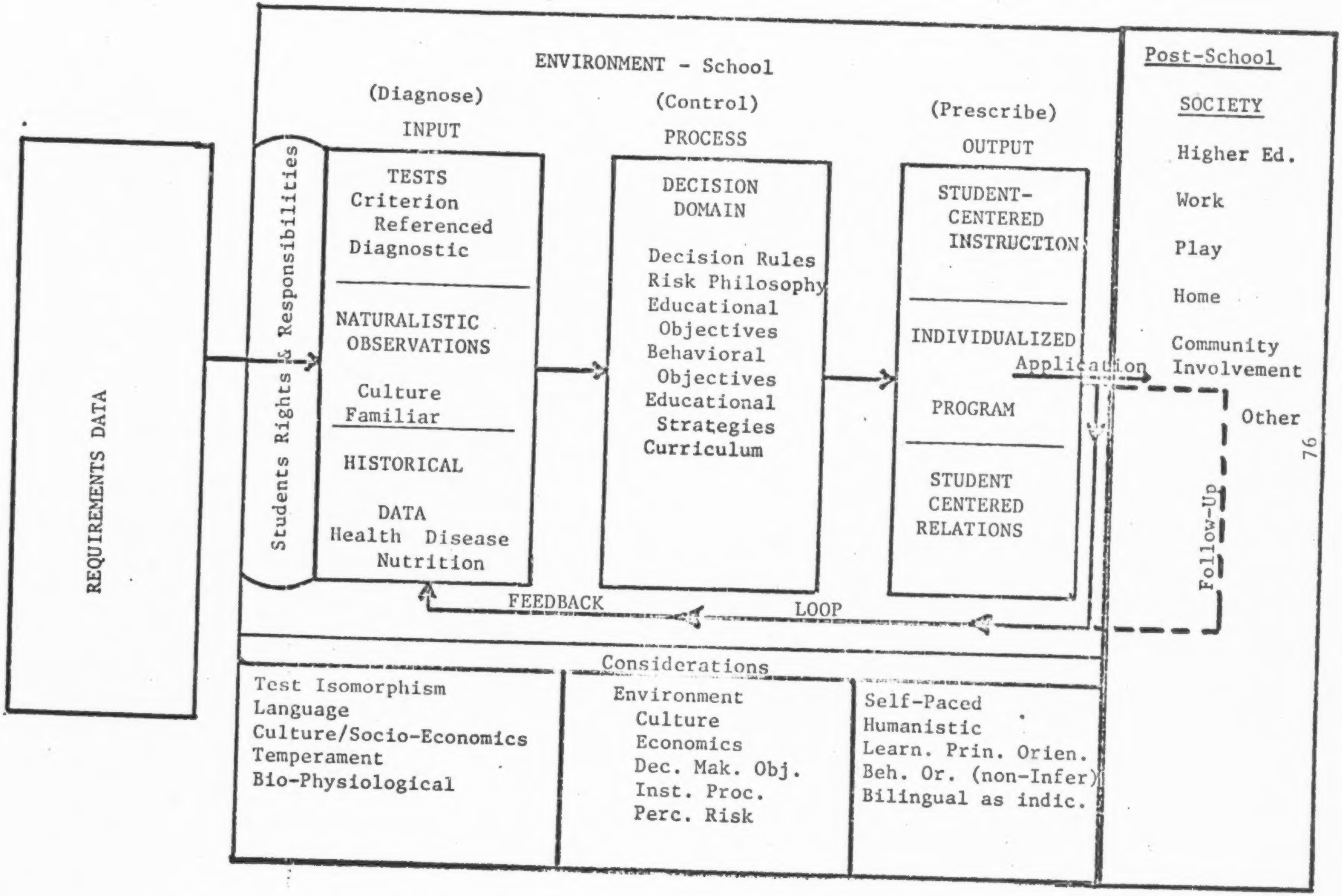
GUIDELINES AND ASSUMPTIONS

1. Behavior Sampling. The sampling of behaviors for testing must use methods and procedures which assure that the sample is representative (or inclusive) of the target population of behaviors.

2. Testing Objectivity. Testing should deal with observable phenomena (behavior) under conditions which are replicable and/or operationally definable. Since testing has been described as the selective process of sampling behaviors, it follows that tests should be tied to the same behavioral objectives as the curriculum, and that such ties should be defined in terms of the operations by which they are accomplished. Inferential processes are to be avoided whenever possible. The use of intervening variables and hypothetical constructs (e.g., intelligence) as explanatory concepts are often unnecessary and too often damaging. They are to be avoided.

3. Behavior Sample (Measurement) Relativity. Since measurements are ecology-specific and thus space/time dependent, it follows that measurements (behavior samples) can and do vary as a function of changes in the time and/or space (environment) in which they occur. Thus we may conclude that

FIGURE A. THE MEASUREMENT PROCESS PARADIGM


REQUIREMENTS DATA
Students Rights & Responsibilities
ENVIRONMENT - School
(Diagnose)
INPUT
TESTS
Criterion
Referenced
Diagnostic
NATURALISTIC
OBSERVATIONS
Culture
Familiar
HISTORICAL
DATA
Health Disease
Nutrition
(Control)
PROCESS
DECISION
DOMAIN
Decision Rules
Risk Philosophy
Educational
Objectives
Behavioral
Objectives
Educational
Strategies
Curriculum
(Prescribe)
OUTPUT
STUDENT-
CENTERED
INSTRUCTION
INDIVIDUALIZED
PROGRAM
STUDENT
CENTERED
RELATIONS
Application
FEEDBACK
LOOP
Follow-Up
Post-School
SOCIETY
Higher Ed.
Work
Play
Home
Community
Involvement
Other
Considerations
Test Isomorphism
Language
Culture/Socio-Economics
Temperament
Bio-Physiological
Environment
Culture
Economics
Dec. Mak. Obj.
Inst. Proc.
Perc. Risk
Self-Paced
Humanistic
Learn. Prin. Orien.
Beh. Or. (non-Infer)
Bilingual as indic.

behavior is relativistic in this ecological sense. Therefore, it is inappropriate to consider any behavior sample as ecologically transcendant and therefore absolute and/or immutable either in rate, duration, amount (quantity), and/or quality.

4. Test information has no intrinsic value. Value derives from its use as a sample of behavior in a universe of behaviors which are bracketed by educational goals and operationally defined by behavioral objectives and curriculum content.

5. Test information is adjunctive, not substitutive. Test information shall always be considered along with (a) naturalistic observations in educational and/or home/community contexts, and (b) historical data which has relevance to learning, e.g., nutrition, disease, injuries, home language, home culture, educational level of parents, and/or other relevant variables.

6. Tests are information inputs to decision processes. (See the paradigm in Figure A.) They are only part of the information necessary and sufficient to acceptable decisions. Making decisions on the basis of single tests or even one battery of tests is not acceptable and no decision rule should ever allow it. Test information is only part of the total input to the decision rules and risk philosophy. Acceptable risk statements must exclude single source information derived solely from test input.

STUDENT TESTING AND PROGRAM EVALUATION

Evaluation is a more inclusive term than testing as used herein. Testing is the use of tests and naturalistic observations with pupils exclusively as defined herein. This is a part of evaluation. Generally, therefore, testing can be construed as evaluation. However, evaluation is more than that. As with tests, evaluation generally is a judgmental process involving values and decision-making involving two or more alternatives. In the singular sense evaluation may involve a single person's performance. In a more inclusive sense, evaluation is a systematic attempt at determining if system (at all levels of complexity) processes are yielding results which are compatible with system purposes, goals, or objectives (at all levels of complexity).

Testing as it is construed herein differs from evaluation in that it is behavior-specific and student-centered (evaluation is that, also, but more than that). Evaluation as used herein is construed to concern itself with larger system processes, from the classroom on up to and including that total educational system (Bureau). It concerns itself with system or institution processes at more complex levels of integration and more general educational objectives, purposes, strategies and goals. Testing addresses student needs. Evaluation addresses system effectiveness.

Insofar as the achievement of individual behavioral objectives contributes to the achievement of the educational objectives of a class, a school, or an educational system, such individual objectives are part of.the more general goals. The more general the level, the more abstract as well as complex. The fifth grade class is an abstract entity; the educational system is even more so. Testing is more concrete. Evaluation, being abstract, tends toward the normative, toward the central tendency and the distribution. Testing, dealing with individuals, tends toward the ipsative, thus it has more humanistic potential. These are trends only. In the past the ipsative trend has not held with students as individuals. Too much attention has been given to abstract numbers and their normative characteristics relative to standardized tests. This has been part of the de-individualizing (and thus dehumanizing) process of education and testing.

Testing--measurement--deals with people, the behavior of people, the sampling of people behavior. Its rightful use is to help people reveal their worth to themselves. Its wrong use is to shame, demean, and dehumanize. While testing may arbitrarily be considered as a sub-unit of a larger evaluation system, such artificial use should never lead one to make uses of test data which result in inferences demeaning to individuals or groups of individuals, e.g., stereotyping. We must always remember that testing is an integral aspect of the educational process of the student. As such it assumes an educative and humanistic importance which is unique and which transends its position as a sub-unit of evaluation.

TESTS AND INDIAN EDUCATION OBJECTIVES

As Popham (1971) has noted, one of the two main roles of evaluation is needs assessment in which the concerned parties attempt to identify the educational goals. It is my belief that Indian education requires such an assessment. Such has not been done to date. Efforts by others are in process in this area. For the purposes of this paper the following general assumption is made.

Indian Education should be culturally pluralistic. It will be bicultural in its general orientation. This means that Indian education should be operationalized in such a manner as to provide those skills, knowledges, and environments for personality growth necessary to enable the student to cope and live productively in the culture(s) of his choice. Thus, the Indian student should be educated in a manner enabling him to live in the technological culture, his Indian culture or both. Also, it should enable him to make decisions involving socio-economic areas and to actively pursue such decision objectives without undue stress arising as a result of inadequate education and/or low self-esteem.

TESTING AS FEEDBACK

As Figure A illustrates, feedback is a necessary part of a healthy, self-correcting open system process. As noted by Wilhelm (1967), "the feedback system" (in education) exerts a tremendous force and is exceedingly complex. Wilhelm states:

> "At one end of the scale, much of it lies within the private world of each child or teacher; at the other end of the scale much of it is hidden in the subtle interaction of public opinion."

This paper has posited that testing will deal with behavior, with samples thereof. Behavior is observable. Feedback should also be in the observable realm of behavior. Feedback involves three realms of observable phenomena: (a) the behavior of the giver of feedback, (b) the behavior of the receiver of feedback, and the transactional interaction of (a) and (b). Transactional effectiveness can be operationally defined in terms of the observable (visual and aural) communications.

"...the test of an evaluation (or testing: Blanchard) system is simply this: Does it deliver the feedback that is needed, when it is needed, to the persons or groups who need it?" (Wilhelm, op cit.)

Wilhelm then goes on to cite several basic criteria necessary to meet the above test of feedback effectiveness. These I shall list below in hopes that they will stimulate thinking.

1. Testing must facilitate self-evaluation.
    a) An aid to learner in understanding what he has learned, its importance, its contextual relationship.
    b) Extent of success and diagnosis of needs requiring further effort.
    c) An aid to the evolvement into a valid and healthy self-image.
    d) An aid to the enrichment of his weltanschauung, his conception of the life space within which he operates, the expansion of his perceived opportunities, available choices, the enrichment of his background perception of purposes and values.

In general, feedback is crucial to the learning and development of the student. Without feedback a system becomes rigid and closed, tending to lose contact with the larger world, and subsequently inserting fantasy "data" where real data from feedback is absent, thus leading to alienation, hopelessness, and ultimate defeat.

2. Testing must encompass every objective valued by the school (educational system).
    a) A widened and expanded evaluation will be of significant benefit to teachers in improving their teaching and the

students' learning.

b) Improvement depends on feedback. Feedback enhances and deepens awareness thus acting as an aid to the channeling of effective effort.

c) Evaluation has to be as "big" as encompassing as the general educational goals, and tied to all purposes of curriculum development.

3. Testing must facilitate learning and teaching.

Instructional diagnosis lies at the very heart of good teaching. The teacher and the student require diagnostic feedback to know where each is and how to move forward.

4. Testing must produce records appropriate to the purposes for which records are essential.

Optimally, grades, marks, and credits should be discarded. As a system of evaluation they have proved to be very destructive in their misuse. From the standpoint of a healthy open-system feedback process they are damaging to self-esteem and development, and they are not informationally sufficient and direct. They are inferential in nature and subject to individual bias and prejudice.

5. Evaluation must provide continuing feedback into the larger question of curriculum development and educational policy.

The evaluation process must concern itself with the total system operation, its purposes, goals, policies, procedures--its operational methods. It must make visible the need to research questions concerning curriculum content, classroom strategies, basic goals, even institutional purposes.

I have talked a lot about evaluation along with testing. As a "sub-system" of evaluation, testing (measurement) programs have the same requirements at a lower level of complexity and abstraction; they operate in the same open-system manner.

TESTS AND STUDENT RIGHTS

This area is covered in more detail in the section (THE RELATIONSHIP OF TESTS TO EDUCATIONAL GOALS AND SOCIAL VALUES). The basic assumption is made (and the facts substain it) that there exists unequal educational opportunities for minority groups, including Indians. A further assumption is made, to wit, that the educational opportunities in Bureau schools are, while separatistic, unequal. Such inequality derives from the inability of such schools to deal effectively with such problems as English-as-a-Second Language (ESL), cultural diversity, and institutional racism. From such basic assumptions, it is my position that standardized, normative tests reflect these inequalities; that these tests provide a means and irrational rationale for perpetuating these inequalities; that these tests are used to magnify unequal educational opportunities and perpetuate myths and stereotypes about Indians and their inability to learn. Two circular results derive from this situation:

1. Because of inadequate (in some areas) and unequal educational opportunities, the Indian student scores lower on standardized tests. These tests with their language, concepts, and artifacts deriving from a different (to the Indian student from the rural, poverty,

linguistically different reservation area) technological culture are biased against the Indian student. Such tests cannot legitimately or realistically sample the behaviors and performance capabilities of the Indian student.

2. Many educators misinterpret and misuse the test data to make decisions which discriminate against the Indian child, lead to low expectations, and result in unfair and unequal educational practices and opportunities. That much of this discrimination and institutional racism is *de facto* does not excuse the educator from his responsibility.

From this one may generally conclude that standardized ability (intelligence) and aptitude tests especially do not adequately sample the behaviors of Indian students, thus yielding an unreal picture of Indian student capabilities and limitations.

Multiple Approaches to Behavior Sampling

The assumption is made that no single test, not even the best available, can sample the behaviors of an Indian student sufficiently and with necessary validity and reliability to make assumptions leading to educational decisions predicated on his ability and/or current skill level. The risk of improper diagnosis is great. The probability of making inappropriate decisions is high. The probability that educational prescriptions will be inappropriate and damaging to skill acquisition and self-esteem is high.

This being true, it follows that multiple and diverse measurement or behavior sampling techniques are required. Such techniques should include but not be limited to: a) skill-specific criterion-referenced tests designed to eliminate or minimize cultural and technological biases; and b) adaptive indices (naturalistic observations) gathered from student behaviors emitted in the natural settings of the unstructured classroom and school millieu, and the student's home, neighborhood and/or community. These should be supplemented by ontogenetic data as necessary to construct an acceptable holistic picture of the student, his abilities, capabilities, and limitations.

The Indian Student, Human and Civil Rights

Indian students, as a sub-group of all students, have basic human rights as co-equal members of the human society. Also, Indian students have and are guaranteed the same civil rights, privileges, and responsibilities under the United States Constitution as other citizens. It is a fact of life, however, that exercise and fulfillment of student rights and responsibilities are not now guaranteed. Yet, they are most necessary if students are to develop their characters and intellects to the fullest possible degree. The exercise of rights and responsibilities by young people must be keyed to developmental/experience levels of skill acquisition and readiness. Thus, the exercise of rights change as students mature, but the rights do not change. Rights are the same whether the student is at the elementary level or the high school and post high school levels. (NEA Publication 76-181045, 1971).

Student rights are twofold in nature:

1. As citizens they have a right to fair treatment

in schools as in the general society. This means that the schools may not discriminate against them because of age, race, religion or any other reason. The students must be granted the rights guaranteed in the Bill of Rights and legal precedent.

2. As clients of educational institutions, students have legal status. Among them are:

   a) The right to influence the effects of the school (institution) on them, including the goals they pursue, the topics they study, the classroom strategies they employ, the materials and processes, and the evaluation criteria. (NEA, loc. cit.)

As further noted in the NEA CODE OF STUDENT RIGHTS AND RESPONSIBILITIES:

> "The educational institution performs a necessary function in the society. It is in the school that young people learn and practice citizenship and humanity. They may learn what society says they must learn; or their lesson may be quite different. The school experience may give them practice in being independent citizens and creative individuals--or in being easily led, of little responsibility, and mindless. If students are to be the kind of people our society requires, the educational institution must respect the student's rights, and encourage him to exercise them. The community, for its part, must not require the schools to restrain students from any given action merely because it is locally or nationally unpopular. Educators must be free to practice their profession, not act as censors of student attitudes and expressions. Students must be free to practice living through school experiences."

Everyone is urged to read the NEA code mentioned above. In this document are contained the following outlined areas:

I. The Institution's Relation to the Student

A. The Right to Access to Education

B. The Right to Affect Organized Learning Activities

C. The Right to Confidentiality of Information

II. Student Affairs

A. The Right to Freedom of Association

B. The Right to Participate in Institutional Government

C. The Right to Freedom of Inquiry and Expression

III. Law, Discipline and Grievance

A. The Right to Establish Standards for Discipline and Grievance

B. The Right to Just Enforcement of Standards

Recognition is given to the fact that it will take some time to secure willing and informed cooperation from all schools. In the meanwhile, let us not forget that the age of accountability is upon us, and that the legal concept known as mens rea may soon be applied by the courts to certain conditions within the BIA and other school systems. Civil application of mens rea to school systems has already started. In the BIA's case, mens rea could mean that the Bureau of Indian Affairs is currently aware of a condition resulting in or indicating unequal educational opportunities, and are not instituting a corrective action. For example, we can predict and have been able to predict for a long time that Indian students will make measurably lower gains in reading and math skills than their Anglo counterparts, and that we knowingly permit such conditions to continue. This even in full knowledge that Indian students are fully capable of achieving at a level equal to that of Anglo students given an equal educational opportunity, i.e., given an educational program that is sensitive and responsive to the cultural, linguistic, and individual needs of Indian students.

The Use of Criterion Referenced Tests

The BIA's Task Force on Testing (TFT) has come up with the position that most tests used should be criterion referenced, and that all tests, regardless of type, should be used for diagnostic purposes primarily. Minority groups have become completely disenchanted with standardized tests, and are militantly against their continued use (NEA Conference, Testing and Civil Rights, Washington, D. C., February, 1972). This disenchantment is not limited to such groups, however. For many years, as an example, Dr. Stott (University of Guelph, Guelph, Ontario, Canada) has given them up and returned to the uncommitted observation of behavior. The work of Dr. Norris Haring and his associates (Experimental Education Unit, University of Washington) also magnifies the growing disillusionment with all inferential measurement instruments, and the effectiveness of direct behavior observation and management.

Indeed, the last few years have yielded a growing disenchantment with the use of the test to measure and evaluate performance in the classroom. As Kunzelmann (no date) notes:

> "Today, many educators are beginning to question its (the test) validity as an assessment of learning, particularly in the primary and secondary school grades. Students in colleges and universities across the country have expressed their dissatisfaction with the examinations as an assessment of achievement. Many of our high school and college students have held examinations in such contempt that widespread

> cheating has become the order of the day.... That the system of testing is ubiquitous in our educational system is a fact. But just because something exists is no proof of its validity. (Underlining not author's). It is high time that we took a good long look and ask ourselves: Does the test have validity as an assessment tool?
>
> "One of the principal factors that a teacher wants to know about a student is his progress. She wants to know how much he has learned and how much time it took him to learn it. But most testing procedures conceal this information (underlining not author's). Certainly a test can tell a teacher where a student is in relation to his peers in the class, but a test cannot give the really vital information: How effective has the learning process been? The test cannot give any information about what the student has learned when compared with his previous rate. An alternative tool, and a much more effective one than the test, is a measurement that is concerned with individual performances.... This paper offers a new measurement system for classroom teaching called continuous assessment."

It is a well known fact that many others have criticized educational measurement, or more specifically, testing. Smith and Adams (1966) stated the following:

> "At best, measurements in education are only observation of behavior samples from which we attempt to make emphasis concerning the relative amounts of a quality possessed by different individuals."

The criticisms leveled against testing by Smith and Adams center around four basic procedural fallacies or inadequacies:

a) Intelligence and achievement are inferential qualities which cannot be directly observed.

b) Man, as a subject for measurement, is difficult since he is in a process of continual change.

c) Educational concepts such as intelligence and achievement--if they are to be used at all--need to be more precisely defined.

d) The units of measurement have not been precisely defined, therefore the tests that have been developed are not as accurate as dime store rulers.

The use of criterion referenced tests tied to behavioral objectives and keyed to curriculum content in the classroom along with adaptive observations in naturalistic (to the student) settings should eliminate most if not all biases in testing programs which lead to and reflect unequal educational practices and opportunities. Behavioral visibility in rate and kind are the prime requisites for ascertaining starting point, placement, or position in an individualized school program (Kunzelmann, op. cit.).

THE RELATIONSHIP OF TESTS TO SOCIAL VALUES

I have noted earlier that tests and testing programs occur within broader socio-cultural contexts. Also noted is the truism that test instruments and programs derive from these broader contexts and thus are partially determined by these more inclusive social functions and structures. In order to fully understand the complexity of the testing field, and to put testing in proper perspective certain relationships need to be comprehended and stated. Some of these are presented herein. Their inclusion springs from a desire to have all concerned parties understand the general nature of these relationships and value conflicts deriving therefrom.

First of all, let it be clearly understood that when we are in the realm of tests and testing we are dealing with values. Value judgements are required whenever there are unknowns operating in the system. Whenever decisions have to be made on the basis of incomplete information we enter the realm of values. Since testing obviously falls within this categorical imperative we need to look at how socio-cultural values operate in testing. We need to see how values and value systems bias testing. After all, that's what this Task Force program is all about. When we look at tests in such a context we can immediately deduce that tests-in-themselves are not bad (or good). We can say, however, using acceptable criteria, that some tests are not as good as other tests. These criteria can be those used by test specialists and statisticians such as sampling procedures, content and construct validity, predictive validity and reliability. Validity has to do with how well a test is measuring what is supposed to measure. Reliability is a statement of the consistency with which it measures. It is precisely here where we get into trouble. For what we are measuring is behavior, and behavior is what a person does, what he does within the context of a specific environment at a particular time, and as he is at that time.

As we all know people are different from each other. Also a person differs from one time to another, from one environment to another, as a function of what he is inside at any given time. People are alike, too. As human beings we have many things in common. But let's look at the differences because this is where we get into so much trouble. Not only do individuals differ, but groups of individuals differ. They differ as a function of the kind of culture they are raised and live in. Cultures differ from each other. Some cultures are radically different from others. People also differ as a function of the degree of technology they are exposed to; as a function of the social relations of a rural or an urban environment. All of these cultural dynamics involve values and value systems with their prevailing mores, their totems, their taboos.

Education systems generally reflect the culture within which they operate. General education goals and objectives therefore usually reflect at least some of the values of the culture. Some of these values are also stated in the form of criteria which are then used to see if a student is learning to perform in accordance with these criteria values. Often, as in the case of standardized tests, the criteria variables go through a transformation which allows them to be stated in the probabilistic terminology of statistics and test construction decision rules. Whether or not they retain their identity is presumably a function of such things as predictive validity. Statistical statements of relationships of test measurements with reality, such as correlations, have commonly been notoriously low, even on subjects within the strict confines of the norming population.

What happens when you give the test to a student from a very different culture; one who was raised in a home where a different language was spoken; one who has been geographically isolated from the sophisticated concepts, symbols, and artifacts presented in the test; one from a poverty background who has been victimized by malnutrition, disease, hunger--by a variety of unequal opportunities and circumstances?

Common sense tells us that it is inappropriate to give such a test to a person fitting even one of these categories. Yet we do it every year by the millions. Why? Perhaps one way to find out why is to look at the uses to which tests are put. Some of these uses are:

A. Grouping, homogeneous versus heterogeneous;
B. Assignment to classrooms;
C. Placing new students;
D. Identifying students needing special diagnostic study and remedial instruction;
E. Helping students to select courses and subjects;
F. Helping students having personal or social problems;
G. Providing information to outside agencies such as colleges and employers.

These are some. A cursory glance at them immediately suggests the possibility of bias entering into the process. It is also easy to see how, for such purposes, tests can be used for exploiting prejudices of people as individuals or as institutional entities. Sure, tests are so misused! But does that imply that we can solve the problem by abandoning all standard tests as many would have us do? Certainly not! You could eliminate all tests tomorrow and the same prejudicial influences would find other means to continue to discriminately and unfairly assign disadvantaged students and groups to programs and practices providing unequal educational opportunity.

In fact, such a state of affairs might and probably would result in an even less acceptable situation. The abandonment of tests is not the answer. The reasons for this can be inferred from what has already been stated and more specifically stated below.

Fundamental Postulate. The discriminatory nature of commonly used standardized tests evidenced when used with minority and/or socio-economically disadvantaged groups is not primary to the test itself. Rather, such discrimination derives from the prevalent unequal learning opportunities for the disadvantaged. This inequality in learning is reflected by the test. More importantly, however, the inequality of learning opportunity biases the criteria from which the test is derived.

We concur with the position of Dyer (1962) who stated:

> "I wish we would get it out of our heads that tests are unfair to underprivileged and get it into our heads that it is the hard facts of social circumstances and inadequate education that is unfair to them. Tests inevitably reflect the opportunities a student has had for learning. If educational opportunities are unequal, then test results will be unequal."

We reassert, however, that tests are put to unfair use by insisting on their use to invalidly sample behaviors of students culturally and linguistically different relative to the test and its built-in language and social value biases.

Principle. In predicting educational attainment, certain criteria are established and employed by a given society as having high value. Any test which purports to measure such educational attainment must, of necessity, share the same bias as the social value criteria. As long as social value systems remain as they are, criteria from which tests are constructed will continue to bias tests and tests will continue to discriminate against the minority groups.

Fundamental to the current social value system, regardless of cries to the contrary, are actions and processes which inevitably result in discriminations against the minority group member; which result in unequal educational opportunity. Testing programs logically reflect this fundamental discriminatory bias.

Social Policy Corollary. Changes in fundamental social policy are required if test biases are to be ultimately eliminated. Such policy changes would require the provision of equal learning opportunities, a term requiring operational and viable definition. Only through such equal learning opportunities can baises be removed from social value criteria as well as the tests which reflect such criteria.

Human Potentiality and Actuality. Current prevalent misconceptions concerning what aptitude or intelligence tests and achievement tests measure must be eliminated. Among the misconceptions are that they measure:

A. Something called "native ability" which is fixed and immutable.

B. That they are even different. Fundamentally, they measure the behavior or performance of a student at a particular time on a particular mental (so-called) task. Intelligence tests usually measure performance on tasks learned over a long period of time; achievement tests measure task performance learned over a relative shorter period of time.

C. That a student who measures high on aptitude and low on achievement is an "underachiever." Such classifications lead to unfortunate and damaging stereotypes such as "lazy," "emotionally ill," or other unfortunate terminology. Also, the notion that aptitude tests measure native ability leads to the "persistent and embarrassing" (Dyer, 1962) demand that they be "culture free," and if not culture free, then they are unfair to the underprivileged, the disadvantaged. It has never been our pleasure and good fortune even in the physical sciences, to deal with absolutes. Such is even more true of the behavioral sciences, education, and more specifically to our concern, testing. This being true, then one can only conclude that the insistence on absolutes where none exist must reflect back on those who so insist. The implication of an irrational, insecure, and defensive posture must be obvious to all who are able to view the reality of the situation. This throws us right back into the value realm, value conflicts, and the imposition of foreign values—criteria on students with the resulting abuse of the student educationally, developmentally, and emotionally.

Principle. If one is to look at the reality of the problem of educational inequality and the use of tests to justify discriminatory educational practices, one must admit the existence of a general awareness of the indefensibility of the prevalent position and the resultant defensive and irrational attempts at justifying the rationally unjustifiable.

Absolutism as Irrational Defensiveness Corollary. The insistence that so-called tests of aptitude or intelligence measure something total, absolute, and immutable in an individual is an irrational position indicating defensive insecurity on the part of those who so will to believe. Since such a posture is widespread in practice, it follows that our middle class society is generally insecure and defensive concerning its social value system, especially as it involves education of minority groups. From this it follows that discriminatory practices inevitably evolve against those who deviate from established social criteria which are reflected in our educational biases and discriminations. Tests provide a most convenient means for justifying discriminations and pacifying consciences. In this sense tests have become the scapegoats of our compartmentalized social value conflicts. The social pathology of which we speak is not projected on the powerless poor and socially disadvantaged alone. All students--and students to date have been a powerless group--have felt the abuse of the system. With the culturally different and the poor it is more pronounced and damning in its ultimate result.

Minority group children, more especially the poor in these groups (and most of them are poor), differ in many ways along certain continua which are determinants in their ultimate educational and socio-economic fates.

According to many researchers, studies of children from lower socio-economic levels indicate (for whatever reasons) that the lower socio-economic level child is less:

a) motivated;

b) intellectually competitive;

c) verbal (English);

d) self-confident;

e) conforming to middle class norms of behavior, and conduct;

f) exposed to intellectually stimulating materials at home;

g) varied recreational outlets;

h) knowledgeable about world outside his immediate neighborhood.

Is more:

a) fearful of strangers;

b) likely to attend inferior schools.

Principle. The American Indian child generally conforms to the above observations with emphasis placed on English (ESL) problems, acculturation stress, and cultural anomie.

Questionable Validity Corollary. Because of the differences noted above (and others not known or specified), *standard tests currently in use are generally biased against the socio-economically disadvantaged, and more particularly, those from different ethnic backgrounds*. Such tests therefore have questionable validity and poor reliability. *They are often failure experiences to these students*, failure experiences which stimulate such students to emit guessing, skipping, and random response behaviors.

Such tests are not appropriate behavior samples because:

a) they may not provide reliable differentiation within the range of scores of the minority groups.

b) the predictive validity for the minority group may be quite divergent from the validated standardized groups.

From this we can readily deduce then that validity is not merely a statistical quantity but an interpretative phenomenon strongly dependent on an understanding of the culture and socio-economic status of the group in question.

Some measures may help which are essentially stop-gap in nature. The establishment of local norms (school, tribe, agency, area levels, for example) may help to provide for differentiation at the lower ends of aptitude and/or ability scales. However, local norms are not a panacea! They do nothing to alleviate the inequality of educational opportunities leading to inequalities in criterion achievement by disadvantaged groups. The use of local norms in a well-planned testing program can be of significant value in educational prescription. However, there are dangers inherent in the use of local norms. They may serve to perpetuate educational inequality by their pacification value. They can be misused by ignorant or designing persons to perpetuate failure and further discriminatory practices.

Principle. Test results can be adequately interpreted and understood only within the socio-cultural context of the individuals or groups, thus necessitating the use of trained, skilled, and culturally knowledgeable test administrators and interpreters, including indigenous personnel in all areas whenever possible.

Testor Character and Training Corollary. The use of standardized tests with any minority population and/or the socio-economically disadvantaged requires the most highly skilled well-integrated persons who are intimate with the socio-cultural backgrounds of the individuals and/or groups involved, as well as persons skilled in the techniques of interviewing.

Test results should be interpreted by trained and experienced persons. All test results should be supported by at least one skilled interview. We should never allow the quasi-objectivism of the statistical numbers game to obscure the continuing need for thoughtful judgments, mental effort, imagination, creative invention, and enduring willingness to cope with complexity. We must be willing to look at adaptive indices, at bilingual and other approaches.

Realistic test interpretation can occur only within the total complex of information gleaned from many sources, including interviews by skilled, knowledgeable, understanding and experienced personnel.

Quantification at the expense of quality information is to be shunned.

English as a Second Language. All tests of minority groups whose primary language is not English are in reality English language proficiency tests. This confounding variable cannot be ignored in any test under such circumstances. Any method for equalizing educational opportunity must encounter and adequately provide for eradication of this fundamental disparity in the language medium.

Principle. The language which is used as the medium for educational achievement is by definition the primary educational discriminator. As such, it is present as a confounding variable along with any other variables singled out for attention (e.g., achievement). Also, it (the language of Education Transmission) becomes a convenient and universally available tool for promulgating and justifying unequal educational opportunities for reasons which are neither rational nor responsible.

The importance of this point cannot be overemphasized. The concepts of bilingual and/or bicultural education must fully consider the irrational and irresponsible motivations underlying large segments of educational malpractice as well as the most complicated and realistic problems involved in bilingual education.

English Language Corollary. Any test prepared in the language of Education Transmission (English) becomes of logical necessity a test of English language proficiency, especially to minority group members whose primary language is not English.

Until such a time as equal education opportunity alleviates this condition inequality will persist unless methods and means are invented and employed for counterbalancing its effects on education opportunity and equality. This is especially true where test interpretations lead to critical educational decisions, prescriptions, and prophecies.

A final principle in the series on general considerations concerning the ecological nature of human potential.

Principle. One cannot construct a viable definition of "human potential" without defining the environment or milieu within which opportunity will be provided for its materialization or development. In the face of the failure of many tests to adequately yield reliable information valid for learning disability diagnosis and prescription, some such as Stott (1971, op. cit.) have gone back to the uncommitted observation of the student's behavior in the learning situation. There appears to be mounting evidence that primary learning handicaps are specific aspects of impairment of temperament which are in evidence in the child's general behavior. Some of these handicaps appear to result from limited and disadvantaged early experiences leading to secondary handicaps or pseudo-adjustments such as avoidances and compensations. Such impairments in temperament and their derivative pseudo-adjustments are often aggravated and magnified by discriminatory and unequal educational and, more specifically, testing practices.

The Law of Multiple Effect Corollary. The Law of Multiple Effect states that environmental disadvantages result in manifestations at all levels of organismic structure and function. Thus, one would expect that the disadvantaged child would have bio-medical dysfunctions along with temperamentally based unproductive learning strategies, general behavior patterns, etc. From this corollary, it follows that the stress of continued failure in the discriminating educational and testing process would lead to magnification and potentiation of some or all of the idiosyncratic predispositions as predicted by the Multiple Effect Law. Thus, the vicious degenerating cycle is perpetuated until the child withdraws into deadly insecurity or strikes out in blind and angry notoriety.

As Dr. Mercer in her study of Chicanos and Blacks at Riverside, California (1972) has so emphatically noted, the IQ score is the single most used and most damaging score the minority child ever receives. It accounts for most of the placement of minority group students in special education classes (as well as other grouping biases). Only a very small percentage ever get medical examinations, especially those kinds of health examinations deserved and required because of their poverty backgrounds with the assumption of malnutrition and disease, along with probable inadequate pre- and postnatal care.

So where are we now? Certainly there are four major factors requiring consideration which were brought up in the recent NEA conference on tests and civil rights (February, 1972, Washington, D.C.).

These are:

A. The language and concepts of tests, especially standardized tests and how these relate to known characteristics of Indian students which interact with the tests.

B. The intellectual, psychological, and physiological (including developmental) status of the student taking the test. (In the past schools have relied too exclusively on the indefensible IQ as a sole expression of intelligence and have neglected the other aspects almost entirely).

C. The attitudes, personality, skills, and knowledges of the test personnel (testor, teachers, counselor, psychologist, psychiatrist, etc.).

D. The operational structure and its system of processes which along with the authority figures determine how tests are to be used to help or hurt the education and development of the student.

Policy statements covering these broad categories are mandatory. Consideration of such factors seem necessary to a complete understanding necessary to adequate policy development and operational implementation.

Let us keep in mind that as far back as 1965 the New York City Board of Education discontinued use of, for example, intelligence tests and has enlisted the assistance of the Educational Testing Service (ETS) in developing better ways to describe the intellectual capacities of children entering first grade. There are three main lines of attack:

1. Development of a practical technique with which a teacher can observe and record the ways in which each child displays intelligent behavior each day.
2. Development of a series of standard performance tasks to elicit intellectual behavior from children whose performance in class provide few cues.
3. Development of special and differential test materials which will give each child a chance to demonstrate his verbal and quantitative skills in a context that is familiar to him.

TESTING POLICY FACTORS

Introduction

A system-wide measurement policy requires the consideration of many factors. In general, all factors logically fit within the open-system paradigm (Figure A), and thus can be considered as follows:

1. Requirements Data
    a. Federal laws and policies
    b. Education purposes and goals
    c. Human characteristics, structural and functional capabilities and limitations (phylogeny)
    d. Individual characteristics, structural and functional capabilities and limitations (ontogeny)
2. Environment
    a. Physical
    b. Socio-cultural/institutional
3. Input
    a. Measurement
        (1) Tests
        (2) Naturalistic Observations
    b. Historical Data
        (1) Health
        (2) Disease
        (3) Nutrition
        (4) Socio-Economics of Family
        (5) Education and Language of Family
4. Process
5. Output
6. Immediate Feedback
7. Follow-up as Delayed Feedback and Guide

Also, since we are dealing with a transactional or ecological model of man, we need to be aware of the field-transactional gestalt operating at any given place in time. ('Field-Transactional Gestalt' is just a fancy way of saying all conditions and people in the environment as they are interacting at a given snapshot in time at a given place).

What we have then is an open system process operating in a transactional field. This process/field model is critical as a conceptual framework for testing policies, procedures, and programs as parts of overall educational programs. Since many misconceptions in education and testing spring from antiquated models and concepts of man it seems appropriate to present one of the more current models which, though incomplete, is keyed much more to current knowledge than the older "mechanistic" models.

The model which is presented as a guide to aid in the determination and specification of education (and measurement) programs for each student is the Transactional Model Man (Ira J. Gordon, 1966). This model is an open-energy, self-organizing system characterized by:

1. Development as modifiable in both rate and sequence, encompassing the following component characteristics:
    a. Genetic-experiental, temperamental
    b. Socio-emotional field transactional
    c. Intellectual modifiable
2. Potential as creatable through transaction with environment
3. A computer brain (as opposed to the older concept of a

telephone switchboard brain).

4. A nuclear power plant energy system.
5. Continuous internal flow of activity.
6. Organization into a system.
7. Uniqueness continuously evolving from organism-environment transactions.

This model, reflecting some rather dramatic shifts in thought from earlier models, is still incomplete. Such earlier models were based on assumptions of linear causation and modeled man as a mechanistic, fixed, closed system; a non-viable construct.

The child in the new field theory or "Einsteinian" model is conceived as an active, information-seeking and information-processing system. As George Kelly states (1955):

> "Instead of buying the prior assumption of an inert object... we propose to postulate a process as the point of departure for the formulation of a psychological theory. Thus, the whole controversy as to what prods an inert organism into action becomes a dead issue. Instead, the organism is delivered fresh into the psychological world alive and struggling."

The person is both active and competent. The energy is there; it does not have to be pumped in from the outside. The person is competent to actively engage his environment and such active engagement is necessary for his maximum development. The person will seek out aspects of his environment as a transactional necessity of his system characteristics unless he has been made apathetic by deprivation or intensely aroused by threat and frustration. Such extremes are rife in our day and need to be addressed by an effective educational system. Remember that man is a self-organizing system characterized by two basic and general concepts: (a) Man is an information-processing, organizing, open-energy system in constant transaction with his changing environment; (b) each individual man, because of the uniqueness of his own organism and particular environment, creatively construes his own transactional inter-face with his environment and thus creates his own contribution to his environment. Now, while the process by which all human organisms engage the environment is common, the stimuli which become information, and the biochemical organization already present at birth and transaction modifiable in someways thereafter to receive and process these stimuli are specific to each person when viewed within the framework of the system-field complex. It is also the business of education to identify aspects of that biochemical organization or disorganization which is inhibiting effective educational transactions in the present. To this end an effective evaluation program in the biochemical and physiological areas is needed along with the traditional examinations of the sensory modalities, tests of cognitive functioning, and psycho-diagnostic tests.

This drive toward stimulation and transactional encounter with the environment has been noted by Von Hilsheimer (undated):

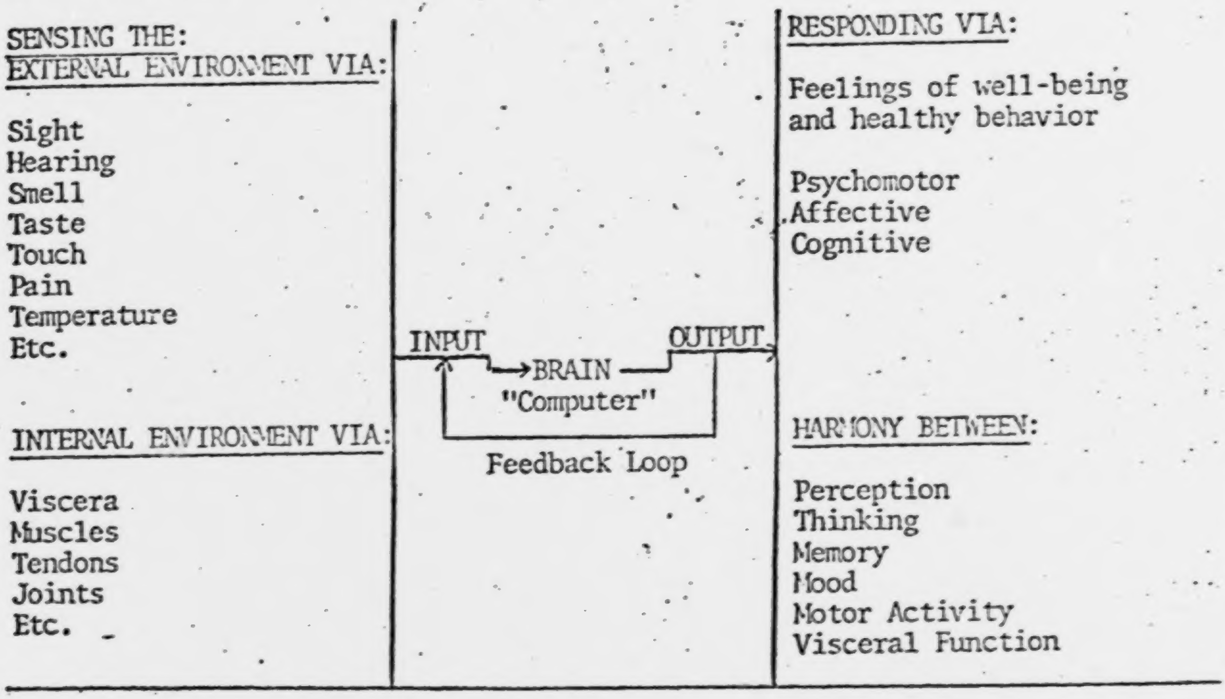
> "There is certainly *no* drive to *avoid* stimulation in higher animals. The motive of growth and power is at least as important as the motive of equilibrium in the homeostasis of all organisms. The infant learns through hunting, approximating, ranging behavior. This hunting is refined toward controls through complicated experiences that are actively sought out by the infant. Boredom, lack of change and stimulation causes death in many infants (Marasmus--Blanchard) and increased arousal in all organisms."

A conceptual model of biological and behavioral homeostasis is presented in Figure B. This model could also be thought of as

FIGURE B

Conceptual Model of Biological and Behavioral Homeostasis.

(Based on Knor, S. C., 1960)


SENSING THE:
EXTERNAL ENVIRONMENT VIA:
Sight
Hearing
Smell
Taste
Touch
Pain
Temperature
Etc.
INTERNAL ENVIRONMENT VIA:
Viscera
Muscles
Tendons
Joints
Etc.
INPUT
BRAIN
"Computer"
OUTPUT
Feedback Loop
RESPONDING VIA:
Feelings of well-being and healthy behavior
Psychomotor
Affective
Cognitive
HARMONY BETWEEN:
Perception
Thinking
Memory
Mood
Motor Activity
Visceral Function

a drive toward stimulation model. Indeed, homeostasis is a dynamic state of equilibrium resulting from effective transactional stimulation activity. Von Hilsheimer (op. cit.) goes on to state that even infants display epistemic (knowing as a type of experience) behavior. He then goes on to list a hierarchy of learning modes.

> "The hierarchy of learning modes would approximately range in the following order:
>
> 1. ontogenic (cell growth, differentiation, etc.);

2. vegetative (endocrine, and unconditional autonomic, etc.);
3. spinal reflex conditioning (sympathetic inhibition);
4. perceptual (kinetic and external through sense organs);
5. kinetic motor reactions (instrumental conditioning, reactive inhibition);
6. motor/perceptual gestalt (cortical inhibition);
7. verbal perceptual (spinal reflex);
8. verbal inhibition: verbal initiation of kinetic events; internal initiation of verbal events; verbal/motor gestalt (cortical inhibition);
9. verbal transactional, verbal cognitive (cortical inhibition)."

> "It is likely that epistemic elements can be demonstrated in all these modes of learning, even the quite primitive. It is clear that learning is an information system, that is, that transactions, exchanges of energies are always implied from the very earliest stages. It is also clear that from gamete to adult the organism actively impinges upon the environment; that is, that excitation originating in the organism produces information to which the organism responds with further and modified excitation."

So much for theorizing and looking at broad conceptual frameworks. If the reader wonders about the relevance of such overarching considerations, I remind you that much of our prevailing biases in education derive from the way we conceptualize man, what man-models we use. This is graphically evident, for example, when you study the resistance by some teacher, administrators, and parents to the use of obviously effective and experimentally verifiable operant conditioning or behavioral modification techniques in the classroom. Vargas and Breslaw (1970) note this fact. They point out that the difficulty arises because of the two major models employed in describing twentieth century man:

1. Rational economic man (with Puritan roots) who emphasizes punishment as the sole means for social change, and,
2. Irrational, destructive Freudian man who brings about

social changes by altering the inner lives of other people.

Vargas and Breslaw emphasize that these are only partial and selective parts of what is apparent in human conflict. They then note that we have a new perspective now (operant psychology) which holds that the understanding of man comes through examining his behavior within the conditions in which it occurs. The authors then state the importance of operant training strategies in the training of personnel.

The factors which have been identified and presented below are not thought to be all inclusive. They are predicated on all of the aforegoing material and some basic considerations which have been explicated by Thomas (March, 1971):

> "One of the things the school has mastered best is a fail-safe process of alienating children and youth. This process, now a master plan, has been derived over years of experience and has profited from the input of thousands of educators across the country. Education has successfully established and carefully implemented these principles of alienation and dehumanization, so that most children and youth are fortunate enough to be modestly affected. A careful analysis of the dehumanizing function yields the following reliable guidelines for schools to follow:
>
> 1. Organize the school around the concept of subjects and disciplines.
>
> 2.. Arrange all learning experiences on a fixed interval schedule.
>
> 3. Assure the role of student to be generally passive.
>
> 4. Justify all requirements and expectations on the basis of some future-time reference point.
>
> 5. Include ample amounts of activities that are sometimes referred to as busy work.

6. Feature the teacher as the star in all classroom learning situations (front center and active).

7. Provide as little opportunity as possible for the student to participate in educational planning, evaluation, policy, or decision-making.

> In short, the alienating function is accomplished by intellectualization, externalization, paternalization, and allocation of more money and facilities. These are the very same responses the white middle class makes to all social tasks and problems. The white middle class teacher and administrator have successfully spread the effect of these defense mechanisms to encompass education."

As Dr. Allen (University of Massachusetts) has noted in a recent speech (NEA Conference, Washington, D. C., February, 1972), the educational system is out of date. It is out of date sociologically, psychologically, and physiologically (pubescence has decreased in age from 18 to 13 years since some school policies were formed. This means that, in many areas, we are forcing five (5) years of pre-pubescent education on post-pubescent students. Is it any wonder they rebel? And how often as parents do we parrot the same anachronistic position?

Also, a moritorium on all testing could prove disastrous to minority groups. It could be made into a racist slam by allowing individuals and institutions to go to even more subjective (more susceptible to bias) and uncontrolled differentiating and assigning processes. Abandon all testing and institutional racism could and probably would be alive and well--and perhaps even flourishing.

Education has said for years that it is not right for everyone to get it right; you can't have all A's! Again we need to ask the question: Why isn't it OK for everyone to get it right?

An implicit assumption of normative testing is that there is an upper half and a lower half. This means that somebody has to lose. Yet, what good does it do to divide students into piles and heap stereotypes and damning self-fulfulling prophecies on them? It depends on what school is all about. If school is about helping children--all children--to learn and grow, then such uses of normative tests are blasphemous. But it appears that school is not that; school is a game. School means keep your seat warm, be good (quiet and plastic), and work hard, even if the work is mindless. Observing school system behavior and performance leads one to conclude that the real objective of school is status--who gets annointed and who doesn't; who gets through high school; who goes to college; who gets the good jobs. Educators use tests (wittingly or unwittingly) to aid in the achievement of this real objective. Education in this country typically reflect the materialistic orientation and schizoid Logical Positivism (always conflicting with a lip-service Purposive Idealism) which characterizes our social system. Thus education emphasizes man's relation to things, whereas man's relation to man is the terrible need. We have come to that ultimately destructive position where we love things and use people, whereas, in the natural order, people are made to be loved and things are made to be used. We desperately need an accepting pluralism in our education. We need test programs which recognize differences in people but do not penalize, patronize, or discriminate against them for it. Tests should only be given when they help learning. Tests should never be used when they detract from learning. We must come to recognize that it is necessary and possible to have unity in diversity. Separated and divided we shall surely perish.

This author considers that a BIA-wide policy on testing should include but not be limited to the factors and considerations listed and elaborated herein. These factors are derivable from the basic assumptions previously delineated. They are subsumed under the following general categories:

A. The Indian Student as Culturally Dependent;

B. The Indian Student as Developmentally Human (That is, culturally independent);

C. The Problem of English Language Proficiency;

D. The Requirement for Bilingual/Bicultural Programs;

E. The Requirement for Special Training and the Specification of Personnel Requirements for Test Administration, Interpretation, Feedback, and Counseling;

F. The Requirement for a Bureauwide Policy on Testing.

The Indian Student as Culturally Dependent

As a minority group, having language and cultural diversities relative to the Anglo culture, the Indian student requires special consideration because of such differences. Considerations should include but not be limited to those listed on this and next pages:

1. Normative standardized tests discriminate unfairly against the Indian student because of the language and culture-concept requirements involved in their development, structure, and content. Because of this such tests, if used at all, should be used sparingly, and even then only under well-controlled conditions which includes other behavior samples gathered by diverse means designed to eliminate socio-cultural biases.

2. Criterion referenced tests must be the tests of choice and should be emphasized in child development and education programs. If and where normative tests are required, local norms, bilingual/bicultural presentations, and test modifications designed to make the test more appropriate to the student's culture must be developed.

3. All tests should be used as diagnostic tools with fast feedback to students. Tests should serve as integral parts of the learning experience.

4. The use of all IQ tests should be discontinued eventually and a more sophisticated apparatus be developed.

5. The use of group IQ tests should be immediately abandoned entirely.

6. The use of individual so-called intelligence tests such as the Wechsler (WAIS, WISC) should be used for diagnostic purposes only. They should be used only by persons possessing skill requirements. Their results should always take into account socio-cultural differences, and inferences should not be made from the test alone, but in conjunction with other data such as adaptive measures, including behavioral reports from class, home, community, work, dormitory, and/or other applicable environments.

7. Emphasis should be placed on new school programs based on Piaget principles where the teachers, tests, and curriculum are all viewed as resources to determine the stages of development for each child and to develop programs which would maximize his development.

We must remember, however, the problem in cognitive instruction is not that simple. The questions of when and how need to be answered. As Gordon (1966) notes from the studies of Ralph Ojemann (University of Iowa) and Vygotsky (Soviet Union) experience in concept development plays a large role in the building of intellectual structures. Gordon states it this way (op. cit.):

"The position taken by Vygotsky was one of intellectual structures built upon deliberate instruction, and then the use of these structures by the developing child to increase his ability to deal with more abstract matters. We note again the cyclical operation. Timing, to Vygotsky, was important. Rather than the concept described in the beginning of this chapter of "divining" for potential, or the traditional idea still held by many teachers of an unfolding concept of maturational readiness, Vygotsky

> claimed that...the only good kind of instruction is that which marches ahead of development and leads it (underlining mine--Blanchard); it must be aimed not so much at the ripe but the ripening functions...instruction must be oriented toward the future, not the past... The school years as a whole are the optimum period for instruction in operations that require awareness and deliberate control; instruction in these operations maximally furthers the development of the higher psychological functions while they are maturing." (End of Vygotsky's quote)
>
> "These ideas (to continue with Gordon) sound familiar to students of both John Dewey and Piaget. They stress that development requires active commerce with the world, and they stress the importance of function. They echo Ojemann's concept of guided experience. The transactional position begins with the child--and builds from there. It stresses openness to experience."

8. Each student should have the opportunity, if the need arises, to receive a sophisticated set of trouble shooting curriculum probes designed to ascertain his stage of development in language, conversation, symbol manipulation, discriminant analysis (learning), and other ripening skills.

9. Where necessary, Indian culture-specific trouble shooting probes should be used to assess skill acquisition and need using symbols and artifacts familiar to the home environment of the student or other environment most familiar to the student.

The Indian Student as Developmentally Human

Research has amply demonstrated that Indian students are not genetically inferior in intellectual capacity or ability. Further, research has adequately demonstrated that normative tests of ability which demonstrate that Indian students fall below national Anglo norms do so because of their (the tests) inability to account for socio-cultural (and language) factors. Furthermore, research has shown that when such socio-cultural factors are identified and statistically accounted for, that the scores of minority group samples become identical with Anglo norms. From these research considerations it follows that:

1. Tests which lead to false interpretations of inferior ability among Indian students should be disallowed wherever feasible; and/or,

2. Test users should be trained to recognize and accept the findings of research so as to cease and desist from drawing biased and discriminatory inferences leading to failure expectations and negative self-fulfilling prophecies.

3. That all BIA test programs incorporate as a basic fact that the developmental process of Indian children, along with their ability potential is the same as for Anglos, and that testing programs and tests should be developed which minimize misinterpretation of data to the contrary. Also, that staff training and development programs be implemented which further minimizes the danger of misinterpretation of biased test scores as indicating developmental differences and stereotypic misconceptions derived therefrom.

We must remember, however, that even though a child actively engages his environment as a transactional necessity, lack of adequate perceptual and motor stimulation from the environment can result in developmental gaps which can in severe cases lead to apathy by deprivation, or intense non-goal oriented arousal as a result of severe frustration or perceived threat, regardless of ethnic origin.

As Andre Thomas notes in Gordon (op. cit.):

> "The shift in point-of-view--to set the antitheses sharply--has been from the child who is passive receptacle, into which learning and maturation pour knowledge and skills and affects until he is full, to the child as a complex, competent organism who, by acting on the environment and being acted on in turn, develops more elaborated and balanced ways of dealing with discrepancy, conflict, and disequilibrium. This shift, I believe, is of incalculable implication and seems to have been accepted to some degree by almost all students of children. Bowlby emphasizes the control by the child in crying and smiling; psychoanalytic theory makes more space for autonomous ego functions; child psychologists dedicated to a learning analysis speak of the child as active; and I suspect Piaget thinks of how he knows it all the time."

It is extremely important that our educational programs shift to accomodate this change in emphasis. To say that the implications for test programs are enormous is an understatement. Perhaps the most portentous statement is that made by Sears and Hilgard (1964) in their most thorough review of the role of motivation and learning:

> "Even in the laboratory there is a turn away from deprived states to positive motives, such as activity, curiosity, and manipulation, to "hope" rather than "fear" as fundamental."

It is high time that our educational programs facilitate and magnify this "hope" as a natural process deriving from biological necessity instead of damning that life-stream of natural competence and active seeking with transactional landslides of fear and avoidance.

English Language Proficiency

What has been said above concerning the child as competent and actively seeking transactions with his environment is also true of language. Language is not an invented tool. It began the way it begins today, in response to an innate drive (Bolles, 1972). As Bolles notes:

> "Researchers have found no language that children acquire in other ways. As soon as any child begins to form phrases, a simple grammar is present. Thus, even without studying all living and dead languages, linguists can assume that all adult languages include the grammatical relations of baby talk. Apparently, children have an innate prejudice for comprehending the world according to a few functional relationships."

I am no expert on language. I am no linguist. However, it seems to me that using the above "truth" as a baseline, and recognizing that all languages are built upon this bench mark of innate commonality, language programs can be developed which provide maximum capability with minimum stress. Since English is the language of formal schooling, of education transmission in this country, every effort should be made to develop, implement, and elaborate English language programs as necessary to overcome the inequity in test results which derive primarily from English inadequacy. You are playing exploitative games with childrens' lives when you use a test whose medium is English with ESL children to make inferential judgements about results other than English proficiency.

Also, there is every reason to believe that early verbal learning is not cortical. Von Hilsheimer has stated it in this manner (op. cit.):

> "Early verbal learning is probably spinal reflex learning; however, quickly the behavior becomes richly interconnected. The child first recognizes verbal label, he then can perform to verbal commands (verbal inhibition), and then he initiates verbal identifications and commands of his own. The reproduction of words and organization of speech is certainly individual in each child. Children develop their own linguistic system, simpler than an adult system, but a complete and unique system. The child's language systematically, and in its own characteristic fashion approximates adult languages. Adult language systems still retain their own unique and highly idiosyncratic features. The child creates his language--it is not imposed on him.
>
> The development of verbal signals is superimposed on the earlier analogue systems and to some extent replaces them. The first functions of speech are directly analogue in structure. Much verbal learning is also accomplished through more simple modes - reading, for instance, most efficiently learned by a combination of spinal reflex, instrumental conditioning, and motor gestalt activity. Reading is probably not in and of itself a cognitive function at all (no more than is hearing)."

These are powerful words with enormous implications for language programs and ESL programs especially. Perhaps this partially explains why certain modes of trying to teach a second language are so disastrous to the child's self-image and results in severe disruption of effective transactional process by extreme frustration and threat, primarily because one is trying to force learning at a cognitive level which not only does not belong there entirely but which causes severe cognitive dissonance, "no" responding, and in some persons the "inertia of verbal inhibition is controlling" (Von Hilsheimer, op. cit.). In fact, as Von Hilsheimer further notes:

> "If deprivation or other arousal driving events are experienced during the "no" stages (those developmental stages where "no" and "don't" appear in the language of all children, and in all cultures before "yes" and "do"--Blanchard) it is quite likely that the "no" analogue becomes fixed. Single trial traumatic conditioning during this period can also fix the "no" response."

Anecdotally, I can recall one or two cases where such occurred in my life; and I have talked to others who have experienced this. Perhaps then we find ourselves in the position where, in our attempts to teach English (ESL), our attempts by their very nature reinforce the inability of the child to respond positively, throwing him, so to speak, neurologically into a reverberating cycle of sub-cortical "no" inhibition. If a child is exposed to an enduring social setting of crossed signals (e.g., a classroom) with constant no/yes, punishment/reward, avoidance/approach, deprivation/expectation polarizations occurring, characteristic "no" responses will be created to strong signals also. A child conditioned in this manner would become anti-social and chaotic in situations where authority is absent and/or roles or information ambiguous.

Bilingual/Bicultural Programs

The requirement for a student-centered measurement program may require bilingual tests and test programs which in the Indian's case, are oral/aural structured because most Indian languages are not written. Since tests are, by definition, diagnostic and objective and curriculum oriented, it seems that bilingual/bicultural programs will be required. This does not obviate, however, the continuing need for more effective ESL programs where decisions are made by the student to compete in the technological culture. Teaching pupils to use language effectively requires many considerations. Since I am no expert I shall merely quote from one good source (Macdonald, J. B., Leyer, R. R., Language and Meaning, ASCD, NEA, Washington, D. C., 1966). Please keep in mind the points discussed in the preceding section on language. Walter Lobon in the cited reference states:

Teaching Pupils to Use Language Effectively

> "What language reveals about people and about its own nature can be used in helping schools teach pupils a more effective use of language. To begin a consideration of language and education, we will look more closely at the problem of social class dialect. (And ESL -- Blanchard).
>
> Because his oral language is such an important part of the child's connection with his home and social group and because it is the most important resource available to the school for educating the child, teachers should not inhibit the primary school child by criticizing his language. Here, then, is the place to begin helping pupils whose indigenous language differs from that of the larger community. A sequential language curriculum would have these strategies for pupils who speak a social class dialect or non-standard English.

The Requirement for Special Training and Personnel Requirements for Testing

In my opinion, this is the most critical area. No conceptual system and no operational plan is any better than the people who put it into action, and action is the magic word. The development of personnel to adequately implement, operate, and maintain testing programs include the following general areas:

1. Personnel Requirements--functions
    a. administering
    b. scoring and interpreting
    c. feedback and counseling
    d. follow-up and feedback
2. Personnel Requirements--quality and quantity
    a. test program description
    b. summary of testing operations (tasks)
    c. position definitions (kind)
    d. manning estimates (number)
    e. special problems (trade-offs)
3. Personnel Requirements Reports--School/Agency/Area
    a. manning report
    b. organizational positions
    c. trained personnel descriptions
4. Training Requirements Data
5. Training Concepts
    a. types of training
    b. individual and group training objectives
    c. behavioral specification of training objectives
    d. training equipment and facilities requirements--on site/ off-site (colleges, etc.)

6. Training Plans
   a. individual, school, agency, area
   b. types of training operations, e.g., OJT, university, workshops, etc.
   c. methods
   d. facilities
   e. instructors/teachers
   f. skills
   g. time
   h. syllabi, aids, manuals, etc.
   i. evaluation, measurement, criteria, etc.

This outline only scratches the surface. Other training requirements and considerations need definition. Also, it is mandatory that we construct training programs which will address values and values conflict, attitudes and attitudinal change, institutional racism, its signs and symbols, as well as skills and knowledges in all aspects of testing as an open-system, transactional process.

'What you are speaks so loudly I cannot hear what you say' still applies. Human beings and especially minority groups have an innate capacity for sensing hypocrisy. Self honesty and straight forward involvement are necessary.

The Requirement for a BIA-wide Policy

A BIA-wide policy is needed for a number of reasons:

1. to order and systematize on the basis of defensible criteria and relevant knowledge that which, to date, has been chaotic and non-systematic.

2. to provide for the common welfare and the protection of the individual rights of all concerned, especially the students. It is axiomatic that tests have been misused by persons to develop and perpetuate unequal educational opportunities, institutional racism, low expectations, leading to poor self-concepts, and other transactions destructive to student development and skill acquisition.

3. A BIA-wide policy should be a general conceptual definition of a testing program, testing requirements and program planning and control. It should provide the framework for systematically operationalizing its philosophy, concepts, and directives. Also, it should be so unambiguous as is possible while at the same time providing a means for resolving ambiguities as they develop during operational implementation.

4. Maximum freedom comes within the framework of boundaries or constraints which maximize the achievement of goals by eliminating extraneous input which serves only as noise in the system, thus interfering with the selective information system process. Control systems are as necessary to the evolving organization as they are to the developing child, and being by definition an open system,continuing evolvement based on feedback guidance is predicated. "Freedom" without policy direction and program control is "unfreedom". Using the information system paradigm, it would mean that the system has so much static (non-informational noise) that no information could be communicated.

These are only some thoughts. Many other can (and have been) added. I will end this section by stating that the "policy system" must be a transactional one in the same sense that the organism is by nature transactional. The BIA test program, must be an open-system whose internal dynamics are "innately" structured so as to, of necessity, seek out transactions with the "testing environment(s)" with feedback processes continually stimulating and updating system processes in a healthy cyclical fashion.

CONCLUSION

There is really nothing to conclude at this time. These are some thoughts, some conceptualizations; some original, others begged, borrowed, and stolen. If they serve to stimulate the reader to think, to entertain new ideas, to re-examine old ideas, then the effort cannot be called a waste.

BIBLIOGRAPHY

1. Blanchard, J. D., The relationship of tests to educational goals and social values, BIA Student Services, unpublished manuscript, 1972.

2. Dyer, Henry S., Is testing a menace to education?, Educational Testing Service, Princeton, New Jersey, 1962.

3. Gordon, Ira J., New Conceptions of Children's Learning and Development, Learning and Mental Health in School, ASCD, NEA, Washington, D. C., 1966.

4. Haring, Norris G. & Phillips, E. Lakin, Analysis and Modification of Classroom Behavior, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1972.

5. Kelly, George A., The Psychology of Personal Constructs, W. W. Norton & Co., Inc., New York, 1955.

6. Kunzelmann, H. P., Revisiting classroom measurement, zeroxcopy, University of Washington, no date.

7. Mercer, Jane R., Socio-cultural factors in the educational evaluation of Black and Chicano children, a paper presented at the 10th Annual Conference on Civil and Human Rights of Educators and Students, Washington, D. C., 1972.

8. NEA, Code of Student Rights and Responsibilities, Publication 76-181045, Washington, D. C., 1971.

9. Popham, W. James, An Evaluation Guidebook, The Instructional Objectives Exchange, Los Angeles, Calif., 90024, 1971.

10. Sears, P., and Hilgard, E., "The Teacher's Role in the Motivation of the Learner," Theories of Learning and Instruction, NSSE 63 Yearbook, Part I, Ernest Hilgard, editor. Chicago: University of Chicago Press, 1964, p. 207.

11. Smith, F. M., and Adams, S., Educational Measurement for the Classroom Teacher, New York: Harper & Row, 1966.

12. Stott, D.H., Behavioral Aspects of Learning Disabilities: Assessment and Remediation, Experimental Publication System (APA), April, 1971, II, Ms. No. 400-36.

13. Thomas, Walter L., Toward a concept for affective education, Combined Motivation Systems, Inc., Rosemont, Illinois, March, 1971.

Bibliography - continued

14. Von Hilsheimer, G., A field theory of personality, zerox copy, Green Valley School, Orange City, Florida, 32763, undated.

15. Vargas, E.A., & Breslaw, J., Operant studies in the training of community action organizers, American Educational Research Association, Washington, D. C., ERIC, ED 039537, 1970.

16. Wilhelms, Fred T., Chairman and Editor, Evaluation as Feedback and Guide, ASCD, NEA, Washington, D. C., 1967.

17. Lobon, Walter, Teaching children to use language effectively, Language and Meaning, MacDonald, J.B.,& Leyer, R.R., Editors, ASCD,NEA, Washington, D.C., 1966.

ED 075458

TM 002 535

THE TESTING OF NATIVE AMERICANS

Presented

At the 11th Southeastern Invitational Conference on
Measurement in Education
University of Georgia

December 8-9, 1972

by

Joseph D. Blanchard
Psychologist

Bureau of Indian Affairs
Indian Education Resources Center
Division of Student Services
P. O. Box 1788
Albuquerque, New Mexico 87103

THE TESTING OF NATIVE AMERICANS

It is bad enough that a man should be ignorant, for this cuts him off from the commerce of other men's minds. It is perhaps worse that a man should be poor, for this condemns him to a life of stint and scheming in which there is no time for dreams and no respite from weariness. But what surely is worst is that a man should be unwell, for this prevents him doing anything much about either his poverty or his ignorance.

G. H. T. Kimble

...All do not develop in the same manner, or at the same pace... Laws alone cannot overcome the heritage of centuries of broken families and stunted children, and poverty and degradation and pain... We must first...demolish the ...barriers of race and religion, social class and ignorance...,call upon common qualities of conscience and of indignation, a shared determination to wipe away the unnecessary sufferings of our fellow human beings...

Robert F. Kennedy

For reasons that are still unclear, the use of IQ tests has in fact taken on many of the qualities of a mystic rite. The IQ has come to be seen as a measurement that not merely summarizes the individual's capacity to perform certain tasks, but on which, in some unspecified way, puts a number to his essential worth. To have a low IQ is seen as the equivalent of having low caste. That such a system of fantasy should surround a simple, useful, but prosaic mental testing procedure is odd; but its implications are of the greatest importance. For, in insidious ways, the assertion that a black man has a lower IQ than a white man becomes tinged-in the minds of psychologist and layman alike-with implications about those individuals' basic value.

Liam Hudson

I have a dream...

Martin Luther King

Introduction

The Bureau of Indian Affairs Task Force on Testing, recognizing the critical roles of testing to the attainment by Native American students of quality education and the achievement of excellence by the Bureau in educational programs, has developed a testing policy to aid in the securement of such quality education and excellence. The Task Force has come to the conclusion that most if not all commercially available standardized or norm-referenced tests unfairly discriminate against the Native American student in such a manner as to deprive him of equal education opportunity and the subsequent denial of equal opportunity in the pursuance of higher education and the attainment of economic freedom and security. This testing policy is presented, therefore, as one means of securing the protection of the rights and responsibilities of all Native American students and parents; and to aid in the protection of the educational freedoms, equalities, and due processes guaranteed all citizens under the Constitution. We concur with the need to address the four major areas of concern voiced by the National Education Association (NEA) in its meeting on minority groups, civil rights, and testing (Washington, D. C., February 1972). There are:

A. The language and concepts of tests, especially standardized tests and how these relate to known characteristics of (Indian) students which interact with the tests.

B. The intellectual, psychological, and physiological (including developmental) status of the student taking the test. (In the past schools have relied too exclusively on the indefensible IQ as a sole expression of intelligence and have neglected the other aspects almost entirely)

C. The attitudes, personality, skills, and knowledges of the test personnel (testor, teachers, counselor, psychologist, psychiatrist, etc.).

D. The operational structure and it's system of processes which along with the authority figures determine how tests are to be used to help or hurt the education and development of the student.

Consideration of these factors is considered necessary to the development of an acceptable Bureau testing policy and program. The aim of the testing task force policy recommendations is to provide for procedures, functions, and structures which yield a testing approach appropriate to the educational goals and needs of Native American students, recognizing the intrinsic worth of all peoples and their cultures. Thus, the right use of testing is to help people reveal their worth to themselves. The wrong use is to shame, demean, dehumanize, therefore, test data should never be used to make inferences demeaning to individuals or groups, e.g., stereotyping. We recognize that testing is an integral aspect of the educational processes. As such testing assumes an educative and humanistic importance which transcends its evaluative function.

Background

This policy on student testing results from actions mandated by the Director of Education Programs, Bureau of Indian Affairs in a memorandum dated July 16, 1971. The same memorandum appointed the

Chief, Division of Student Services as Chairman of a Task Force on Testing and charged the Task Force with developing a proposal for a coordinated Bureau wide testing program, including philosophy and guidelines and concern for consistency and continuity in testing.

The TFT group held a series of four regional meetings around the country. These regional meetings were interspersed by meetings of the permanent membership. The regional meetings were designed to include area, agency, and local school representatives, along with students from schools in that region. Input from these representatives was considered necessary to gain visibility on the state of testing within the Bureau, and to secure "grassroots" imput to policy development. Test specialists from outside the Bureau were invited to participate in the meetings. Also, members of the TFT visited educational institutions involved in innovative educational programs. TFT members have familiarized themselves with a wealth of liberature and research on testing. Some TFT members have studied extensively documents concerned with student rights and responsibilities, legislation affecting student rights, and a variety of materials concerned with many aspects of civil rights, student movements, and testing.

The TFT has conferred with students at various levels of Bureau education, elementary through post high school. The situation in elementary schools is more difficult because of the wide range of developmental levels or stages. The TFT affirms the need for children to begin early to practice self-determination if they are to become responsible citizens of the society. The exercise of rights change as children mature; the rights are for all; the rights do not change, they apply to all ages. The basic process incorporates growth experiences in self-determination in all educational programs, including the testing program. Tests and testing programs have tremendous influence on the student and his ability to exercise his rights and achieve equal educational opportunity. The TFT recognizes the responsibility of the Bureau to involve students in those decisions which have such a great influence on their lives and their futures.

The aim of the TFT policy is to provide for procedures, functions, and structures for a Bureau testing program appropriate to the educational needs of the students. The TFT believes that the recommended policy represents principles which will have enduring validity.

Discussion

The Task Force recognizes the need to establish clear and definitive educational purposes and goals as preconditions to the specification of tests, test processes, and testing objectives. To protect the welfare of the Native American student, the Task Force recognizes the requirement for the provision of procedures which enable the exercise of rights and responsibilities by the student in the testing process. The Task Force is aware that the means by which a student develops in the exercise of his rights is an integral aspect of the educational program. To accomplish this aim, the principle of informed consent shall apply. Native American students in Bureau schools have a right to understand the purpose of testing; they have a right to be given information on test results. Students have been given little choice in the testing processes; seldom have they been recognizes as having voice concerning tests and their option rights specific to tests and uses made of test scores.

The researches and deliberations of the Task Force have yielded two primary positions which shall be the corner stone of all subsequent Bureau testing policy:

1. That standardized tests developed on population norms, having as their primary purpose the ranking of students on inferential scales so they may be compared with one another, should be phased out in an orderly but firm manner, except as specified herein.
2. That criterion - referenced tests tied to curriculum content and integral with educational and behavioral objectives become the tests of choice.

Norm-referenced Tests Inadequacies

The Task Force has determined that standardized tests have been misused by design or default. The Task Force has conducted extensive research to supplement support of its findings and opinions acquired in regional meetings and in caucus. Such research has shown that the last decade has demonstrated a growing disenchantment among educators with the use of standardized tests to measure and evaluate performance in the classroom. As has been noted by many educators, one of the principle factors a teacher wishes to know about a student is his progress. The Task Force has made the critical observation that most standardized testing procedures conceal this really vital information; that such tests can only tell where a student is in relation to his peers. Other criticisms leveled against standardized tests, which the Task Force believes to be valid, are :

1. Intelligence and achievement as measured by standard tests are inferential qualities which cannot be directly observed.
2. Man, as a subject for standardized measurement, is difficult since he is in a process of continual change.
3. Educational concepts such as intelligence and achievement are of doubtful value in the educational process. If they are to be used at all, they need to be more precisely defined in a less inferential manner.
4. Units of measurement for standardized tests have not been precisely defined.
5. Standardized tests survey skills. They do not test for all the appropriate skills.
6. Tests usually pick random skills. They do not systematically assess all the important skills pertaining to a given subject area.

7. Test scores frequently suggest remedial programs which are not appropriate. Because of this, the teacher is not always able to make use of the scores as diagnostic tools for improving or expanding the teaching program needed by a given student.

8. Norm-referenced tests are known to unfairly discriminate against minority groups. They lead to harmful and inappropriate stereotyping, and are psychologically harmful as traumatic experiences to the student. Standardized tests also create artificial and unnecessary barriers among students by creating a sense of competition through their ranking and comparing procedures. They often become instruments of forced acculturation by their imposition of test-culture values. Test instruments of this type are often invalid for the general populations and, are almost always invalid with Native American students and other groups ethnically and linguistically different from the norming population.

The Task Force concludes that currently used standardized, norm-referenced tests are high risk instruments whose potential for misuse and subsequent harm outweigh their positive value especially in light of their lack of utility in educational prescription, classroom strategies, and visibility on behavioral objectives achievement. Criterion-referenced tests have these capabilities and are effective as learning tools. These conclusions have led the Task Force to develop a testing policy based on current learning theory, child development needs, and concern for the rights and responsibilities of Native American students.

Student-Centered Test Programs

A student-centered test program requires that the student shall be involved in all areas of the open-system process. This requirement is based upon the validated principle that the more involved a student is in the processes which affects his life the more constructive are his interactions with his world and the more responsible and self-directing he becomes.

Input

The student shall be provided with all the information necessary to achieve demonstrable understanding of any and all tests, test procedures, and test requirements which are presented as legitimate (within test policy requirements) aspects of the student's education program. The principle of informed consent shall apply. A procedure shall be established whereby the parents of the student can become involved in the input or information process by request of the student, the parents, or the staff member.

Process

Process shall be construed to include but not be limited to a decision function. Participation in decision processes are necessary to the personal and social development of students. The responsible exercise of rights and freedoms derives from experience in the decision process.

Output

Output is the active implementation of the decision function. Decisions result in commitments. Understanding of personal values and confidence in judgements evolve from the information-decision-action process. This leads to more positive involvement in the test process and a higher probability of achieving a valid sample of behavior in the skill area being tested.

Feedback

Effective learning strategies require feedback to the student. The closer the feedback is to the performance, the more reinforcing the feedback becomes to the learning experience. The feedback of test performance results to the student should be a positive learning experience. Test results shall never be presented to the student in such a manner as to be perceived as a failure to himself as a person with resultant loss of self-esteem.

Student Rights and Responsibilities

The policy shall protect the Constitutional rights of Native American students from the arbitrary use of discretionary powers under the doctrine of *in loco parentis* specific to the area of tests and test programs.

The Task Force affirms the need to secure and maintain the rights and responsibilities of Native American students. The Task Force recognizes that the securement and maintenance of such rights and responsibilities is in concert with the United States Constitution and recent court decisions.

A major educational goal for Native Americans is the education of students toward responsible, self-directing citizenship. To aid in the accomplishment of this goal of free and equal self-direction, the Task Force recommends that the Bureau directs all schools within its jurisdiction to build into their testing programs provisions for the protection and exercise of the rights of students. This protection and exercise of rights shall be structured as an integral aspect of the learning experience. Rights used herein shall include option rights, welfare rights, and the right to procedural due process, where option rights have to do with freedom of expression, welfare rights have to do with the provision of access to equal educational opportunity, and due process rights being concerned with the entitlement of students to notice and opportunity to a hearing before any injurious action such as expulsion takes place. In order to satisfy the intent of this policy statement, the principle of informed consent shall apply. This principle shall give the student a voice in the information-decision-action, open-system process in the area of tests and test programs as stated in policy statement one. To satisfy the intent of this policy, two major areas require operational definition.

1. School admittance. Upon admittance to a Bureau school, the student shall be counseled on the testing program policy to achieve understanding and secure informed consent to the general policy in satisfaction of the requirement for orderliness in the educational system. At this time the student's rights and responsibilities shall be clearly explained in a language the student can comprehend.
2. Educational Process. At any time during the educational process a student may exercise his option rights in the taking of a test, where such is perceived by the student to be to his best interest. In such cases it shall be the responsibility of the Bureau school to aid the student in clarifying his position and in helping the student understand the implications and consequences of his action. In no case shall the student be subject to injurious action as a consequence of his decision and exercise of rights without procedural due process.

Diagnosis of Learning Difficulties

The Task Force has gone on record as recommending criterion-referenced tests as the tests of choice for Bureau education, and for Native American students in all educational systems. The Task Force is in general agreement that norm-referenced tests, which include the large majority of commercially available standardized tests, should not be used in the evaluation of student progress. We of the Task Force believe that norm-referenced measures are usually too gross;

that they usually do not provide the precise information needed to secure visibility regarding students' achievement on specified objectives. Because of their ranking requirements and dependence on score variability, such tests often provide misleading estimates of the amount and kind of student performance. More importantly, as the Task Force has stated before, norm-referenced tests are not tied to local program educational and/or behavioral objectives. Because of this fact, they offer little help in making decisions about which particular learner behaviors have or have not been modified by instructional treatment. Requirements for the selection and use of tests shall include, but not be limited to the following:

1. Tests selected to yield precise information regarding students' performance on specified objectives shall be criterion-referenced. Curriculum strategies shall include this provision for the use of behavioral objectives and criterion-referenced tests.

In cases where behavioral objectives or criterion-referenced tests are insufficient to diagnose and prescribe for specific learning difficulties, a pluralistic approach shall be used. This approach shall include but not be limited to such techniques as:

a. The uncommitted observation of classroom behavior.
b. Unstructured observation of the student in the home living environment.
c. Measures of adaptive skills in the environment familiar to the student. This may include reports from parents, friends, or other persons familiar with the student's general

adaptive proficiency

d. The use of special curriculum probes.

e. The use of self-evaluation interviews.

f. The use of precision teaching techniques.

g. The use of variations in positive reinforcement schedules and reinforcers in conjunction with precision teaching techniques.

h. The use of special diagnostic tests by trained personnel. In some cases this may include the use of special norm-referenced tests by persons skilled in the use of such tests for diagnostic purposes and intimately familiar with the ethnology of the student.

2. Tests used in individual cases which present a difficult diagnosis of learning disability may use norm-referenced tests under limited conditions.

   a. Such norm-referenced tests shall be given on an individual basis.

   b. They shall be administered by individuals who are trained and competent in the area for which the test was designated.

   c. These persons shall be intimate with the socio-cultural background of the individual student.

   d. The data derived from the test shall be used for information, decision, and/or action specific to the learning disability.

   e. Strict confidentiality shall be maintained regarding access to the test data.

f. No numerical score shall be placed in a record or given to a teacher. Experience has taught us that the "mischief potential" of such scores is overwhelming.

g. As a general rule, data relevant to curriculum content and behavioral objectives derive from item analyses of the standardized tests. Such items can be tied to behavioral objectives and would in themselves collectively constitute a criterion-referenced test.

3. No single test score shall be used to make decisions which affect access by the student to equal educational opportunities, or which restricts the student's freedom of inquiry by limiting the choices available to him.

4. In all cases the student, the parent, and/or other student advocates may demand access to information which demonstrates the competency of the testor specific to the socio-cultural context of the student. This applies to any stage of the open-system process (Input, Process, Output, Feedback).

5. The student shall be able to use his option-rights in any case where a test is used to make decisions which directly affect his image, his educational future, his economic potential, or other uses determined to be significant to his welfare or rights. In all cases where the exercise of such rights is within the developmental capability of the student, that student shall be allowed to exercise such rights. Where such is not the case, the school shall provide for learning experiences which allow
for information processing, decisions and actions

which facilitate the growth in ability to exercise these rights at a rate constantly challenging the student's ability The Bureau schools shall incorporate in their curricula, strategies, contents, and learning experiences, processes which facilitate the development of autonomous actions, a striving for equal opportunity, and the skills necessary to the obtainment of procedural due process.

It is conceivable that the process of relating items in a standardized test to behavioral objectives may constitute a viable and necessary interim method for satisfying the requirements for criterion-referenced tests where none are available at that point in time, but even then only when a collective determination has been made that they are clearly better than nothing. In such cases the testor shall be thoroughly familiar with the limitations of this approach, and shall adhere to the minimum standards as set fourth in the standards manual recommended for interim use.*

---

*Standards for Educational and Psychological Tests and Manuals

Prepared by a joint committee of the:

American Psychological Association
American Educational Research Association
National Council of Measurement in Education

Published by the:

American Psychological Association, Inc.
1200 Seventeenth Street, N.W.
Washington, D. C. 20036

Use of Clinical Tests.

In general, clinical instruments shall not be allowed for the diagnosis and classification of students into categories which can be used to deprive them of their freedom and equal opportunity rights. There are more appropriate techniques for helping a student to understand his behavior and how to change it. Also, the criteria developed for response comparisons are culture-specific in most cases. It is highly unlikely that such tests can yield valid data, or enhance to any significant degree predictive data provided by base rates developed from demographic variables with known influence on the disability in question. The ultimate decision to use such tests must rest with those responsible persons skilled in their interpretation within the socio-cultural context of the student. A provision shall be made and procedures established for the skilled use of some instruments for research in behavioral and learning difficulties which are stubbornly resistent to change. Here, as with norm-referenced tests such as achievement and intelligence, the same limitations and constraints shall apply as are specified for norm-referenced tests.

Rationale Underlying Position.

As is the case with norm-referenced academic measures such as achievement tests, clinical tests for the differential diagnosis of individual students are subject to the socio-cultural biases which often lead to erroneous classifications resulting in violations of the rights of students. Most of these tests are developed within the so-called "Medical Model" and thus possess inferential qualities which are a function of the medical model value structure.

The potential harm of such a sympton labeling approach is obvious, as is the ease with which cultural biases can be injected.

Factors which are used to label behavior as pathological include:

1. Normative (comparative) standards of person making judgement.
2. Social context in which the behavior is exhibited.
3. Certain attributes of the behavior.
4. Numerous characteristice of the student which may not be apparent to the labeler.

Quite often behavior is labeled as psychopathological merely because it produces negative responses in others; it has low "cosmetic" accetability. Very often personal attributes such as age, sex, social position, occupation, race, ethnic orgin, and religion become involved. It is obvious that much damage can be and has been done with inappropriate medical analogizing.

Another ethical issue in the use of clinical techniques is that of using such techniques to "trick" the person into revealing himself, thus depriving him of the protection against self-incrimination afforded by the Constitution. To pronounce that the student is "sick" and therefore disenfranchised and without Constitutional rights is a travesty on justice of the highest order.

The Task Force does not wish, however, to completely inhibit the use of such tests arbitrarily, recognizing that in isolated cases some good many derive from selected clinical tests, but only for special cases as part of a diagnostic package, and within the constraints specified in this policy and its supportive documentation.

Student Self-evaluation as Reinforcing Feedback

Recognizing that the major thrust in testing and test development by the testing companies has been norm-referenced tests, and recognizing that initial options may be severely limited, a need to develop criterion referenced tests at the local school level will arise, along with appropriate item analysis and item banks derived from standardized tests by testing companies.

Following the open-system model at the level of individual testing the principle of feedback-as-self-evaluation is the test experience of choice. The basic idea behind criterion-referenced testing is that the student himself is the main recipient of the information obtained. Ideally the learner is taught the criteria for evaluating his own performance, behavior, or actions, and provided measuring instruments designed to allow him visibility on where he is in relation to where he has plans to go. This will permit the student to secure a realistic perception of his achievement relative to established criterion levels. The student's evaluation will be in terms of his own mastery of curriculum materials (level) and his own progress (rate) toward goals and specific objectives, not in terms of evaluations which compare his work against other pupils to determine a grade or some other norm-referenced scheme

Test Usage

Every Native American student has a right to access to and the provision of quality education. Equality of educational opportunity is guaranteed under the Federal Constitution. The Native American student shall have that equal educational opportunity afforded by the Constitution and upheld by the courts of the land. In no case shall tests be used to violate these rights.

The Task Force has gone on record as adopting the position that standardized, norm-referenced tests discriminate unfairly against the Native American student, a condition often resulting in a restriction of the students' option rights or freedoms, and resulting in the denial of the students' welfare rights with regard to the provision of equal quality education. The policy to date also affirms that under the doctrine of in loco parentis, a doctrine often exaggerated by paternalistic practices, the Native American students have been deprived procedural due process in actions taken against them as a result of their performance on norm-referenced tests. Such actions include, but are not limited to the assigning, classifying, grouping, and categorical labeling and stereotyping of Native American students in ways that are alienating, dehumanizing, and destructive to the student's self-image. These destructive practices often lead to negative self-fulfilling prophecies while increasing the injury of institutional racism and irresponsible paternalism.

In accordance with the stated position, the Task Force recommends that no educational institution at any level within the Bureau may deny admission, or access to any program or facility within the institution to a Native American applicant solely on the basis of tests or any single test score from any test be used as screening devices to admit some students and deny admittance to others. This requirement shall include all educational institutions receiving JOM funds or any federal funds to support educational programs for Native American students.

Johnson-O'Malley (JOM)-Funded Schools

On the basis of this position and these findings the Task Force believes that the Bureau would be remiss in its duties and callous in its disregard if it did not include all Native American students in this policy, including those in JOM-funded schools. The Task Force recommends that such schools be included in the requirements of this policy pertaining to Native American students and testing; and that a procedure be established for implementing the intent of this policy with minimum disruption to the efficient and effective operation of JOM-funded schools.

Cumulative Records and Social Summaries

Historically, cumulative records and to some extent social summaries have contained numerical test scores. Usually these test scores have come from norm-referenced standardized tests. Based upon the empirical evidence which has accumulated over the years from the giving of standard achievement, ability, and other norm-referenced tests, the Task Force concludes that the high potential for destructive misuse inherent in norm-referenced test scores, coupled with their general availability to local.school personnel, militates against their continued use, except in special diagnostic cases as specified elsewhere. On the basis of this conclusion, the Task Force recommends that the Bureau makes it mandatory that numerical test scores be excluded from the cumulative records and social summaries of Native American Students.

The Task Force further recommends that this shall include the removal of such numerical test scores from the cumulative records of students enrolled in school at the time this policy goes into effect.

Where diagnostic information developed by previous evaluations is available, it shall be transmitted in a confidential manner only to the person or persons who have a need to know, and who are trained and competent to understand and interpret such information, and then only if the condition is known to continue to exist. This policy statement may not be construed to inhibit the transmission between appropriate professionals of health, medical, and other diagnostic and prescriptive information necessary to protection of health, safety, and well-being of the individual student and/or the collective personnel of the educational institution. In no case, however, may the transmission of numerical scores by cumulative folders, social summaries, or other documents which are available to general administrative and academic personnel be construed to fall within the category of protection of health, safety, and well-being.

Higher Education and Job Opportunity

The Task Force recommends that the policy shall provide for the protection of the rights and opportunities of Native American students from unfair and discriminatory misuse of tests by agencies and institutions of higher learning outside the Bureau. Norm-Referenced tests are often used by college admissions offices and employers as a method for screening applicants. Since minority group members, including Native Americans, characteristically score lower on these for reasons other than ability, it follows that, percentage-wise, more are screened out and denied access to equal education and job opportunities. The Task Force believes along with other groups that a basic principle of democracy is the right of all citizens to pursue a course in life suited to their temperament and talents. To make the choices necessary to select and implement such a life-way, each citizen needs that education necessary to the enhancement and encouragement of his potential. It is the function of primary and secondary education to provide this baseline of information and encouragement. The Task Force believes that not all Native American students at present have access to this kind of education. and that norm-referenced tests are often used to justify inequality and exclusion. The Task Force further believes that educational institutions beyond the secondary level which exclude Native American students on the basis of some test score, not only do a disservice to the student, but at times deprive themselves of quality students and the communities of needed skills. The Task Force, therefore, recommends that post secondary undergraduate institutions--colleges, vocational schools, or other--admit all applicants, and that they provide a means for those with non-standard preparation to benefit from the higher education to the extent of their ability and desire. The Task Force recommends that the Bureau use all appropriate means to assure the Native American student equal access and opportunity to higher education and job placement, and that the Bureau strenuously oppose the misuse of standardized tests do deny that equal opportunity which is their right.

POLICY STATEMENTS

THERE SHALL BE A BUREAUWIDE EDUCATION PROGRAM

It shall be the policy that educational achievement and human development shall be measured through the use of criterion-referenced tests that are designed to assess the progress that each individual student has made.

Standardized or norm-referenced tests shall not be used except for diagnostic purposes as specified in other sections of this policy.

Criterion-referenced measurement shall be continuous in the sense that it will allow the student to be aware at all times of his progress.

Other methods of measurement such as observation of classroom behavior, observation in the home living environment, and reports of parents and others who know the student may be used to provide supplemental information.

THE PROGRAM SHALL BE STUDENT CENTERED

It shall be the policy that the information gained from the measurement of student achievement and development will be done primarily to provide assistance to the individual student.

The reasons for giving the test, the procedures involved in taking the test, and the uses that can be made of the results of the test will be explained carefully in a language that he can understand before any student is asked to take any test.

The results gained from the test will be given back to the student with a full explanation immediately after the test is scored.

THE PROGRAM SHALL PROTECT THE RIGHTS OF STUDENTS

It shall be the policy that test results will not be used in any way that may result, either directly or indirectly, in the infringement upon each individual's right to self-direction. Test results will not be used to assign students to classes, tracks, or other groupings where such an assignment implicitly or explicitly results in injury to the student or infringes in any way upon the student's attempts at progress toward his or her goals.

THE PROGRAM SHALL ALLOW THE USE OF STANDARD TESTS FOR DIAGNOSTIC TESTING

It shall be the policy that standardized and/or norm-referenced tests may be used in the diagnosis of individual achievement or developmental needs provided that:

a. The tests be used only with individual students.
b. The person giving the test knows not only the appropriate way of giving, scoring, and interpreting the test, but also knows the cultural background of the student.
c. The results of the test will be released only to the student or to persons who the student agrees should have the information, except that the information may be released for program evaluation purposes provided that the students' names and other identifying information be removed prior to released.

THE PROGRAM SHALL ALLOW THE USE OF CLINICAL TESTS FOR DIAGNOSTIC TESTING

It shall be the policy that projective and other clinical tests will be used only in the diagnosis of severe behavioral and learning difficulties which are of long duration and stubbornly resistant to change. The policies governing standardized tests will apply to the use of projective and clinical tests.

THE PROGRAM SHALL PROVIDE FOR STUDENT SELF-EVALUATION

It shall be the policy that each student will be taught how to evaluate his own progress. Each student will be provided with the descriptions of what is to be learned, how the information will be useful to him, and how the tests and their uses will make it possible for the student to judge how much he has learned.

THE PROGRAM PROVIDES FOR THE USE OF TEST DATA IN MANAGEMENT INFORMATION SYSTEMS

It shall be the policy that management information systems (MIS) and other research and evaluation systems will have access to all test information that is gathered in keeping with this policy, provided that all names and other identifying information is removed prior to the release of the information.

In no case shall these program evaluation systems impose additional tests on the students.

THE PROGRAM PROVIDES SAFEGUARDS AGAINST THE MISUSE OF TESTS

The policy shall be that information gained from the use of standardized tests will not be used by any school, either within or outside the Bureau of Indian Affairs, to determine admission to the school or to any program or activities within the school, except in the rare cases permitted by other sections of this policy. This policy will apply to all schools, including institutions of higher learning, with the exception that the student himself may choose to take tests required for admission to a particular school or department where the taking of the test is required of all applicants for admission.

THE PROGRAM PROVIDES FOR POLICY IMPLEMENTATION

The policy demands the development and implementation of a program that will carry out the intent of the policy. This program will include but not be limited to the development of operational procedures, a definition of the optimal conditions for testing, the appointment of staff, the accumulation of equipment and materials, plans for the inservice training of teachers and other field staff, procedures for insuring compliance, and the definition of the interface of all of the departments, agencies, and institutions that the policy affects.

ED 075459

002 536

SCHOOL DESEGREGATION - THE PROBLEM

By Mr. Milton Hill

University of Georgia

The role of the secondary school administrator has been described by Mark Chesler and his associates as analagous to a captain trying desperately to keep his ship afloat while being buffeted by gusting winds from all points on the compass. As a nominal, if not actual, leader of educational activities, the administrator generally is considered responsible for whatever goes on in school. Thus, it is necessary for him to interact with and respond to a wide variety of people and agencies.

Since our office is funded to provide assistance to school districts in preparing, adopting, and implementing desegregation plans as well as training personnel for desegregation, we have been afforded an unusual opportunity to view the school desegregation process in the state of Georgia and gain insight into some of the problems associated with the process.

From outside the school, the administration is pressured by varied community groups, --- economic, social or racial in nature - and by their demands for communication, access and accountability. Further he is pressured by the standards and requirements of accrediting agencies, local industry and college entrance boards. Mass media representatives often amalgamate and escalate these forces in their own search for news.

Within the school, the administrator is faced with developing the organizational supports for a high quality education, reflected in issues of curriculum, staffing, and student and teacher discipline. Maintenance and clerical personnel, as well as the needs of the physical plant materials and supplies, add to this load.

The overall administrative structure demands business as usual in the face of countless unresolved problems, provides no time for planning, lacks control over budget, and adds restrictions emanating from tenure laws and employee contracts. In his relations with colleagues and staff, the administrator often is faced with minimal peer and supervisory support, faculty pressures to run a "tight ship", collective bargaining demands, and the need for good relationships with students.

In addition, every administrator is faced with problems generated by his own values and priorities, his own skills, and the pressures of his own personal and family situation.

When we look at the total school desegregation process in retrospect it is apparent that,in dismantling the dual school system and creating a unitary one, many continuing problems were illuminated and new problems came to the forefront. It is our projection that many of the same problems will continue to exist as different districts implement phases of desegregation plans. Some systems will be facing the challenge and opportunity to move from desegregation to integration and to quality interracial education. Problems of these two phases in some form or degree fall into one or more of the following categories.

1. Interpersonal Relations

   For years, in the schools and in the broader supporting culture, black and white people have lived and worked side-by-side, but for the most part in separate groups and in different systems. There are many fears, hostile feelings, misunderstandings, established rules of conduct, etc. which grew out of approved behavior in the old system. With the creation of a unitary school system, these fears, feelings, etc. need to be examined and understood in order to build the new relationships called for. They persist, though in varying degree, in school systems that have been unitary for one or more years.

2. Communication

   In the creation of any new system, the problems of communication are highlighted. Improvement of interpersonal and intergroup relations is in a large sense a matter of improving communication so that people better understand themselves and others. If people are informed about what is being attempted and accomplished they are more likely to support the change process. Help is needed to show the importance of communication, to know what needs to be communicated to open up awareness of communication, to know to whom communication needs to be extended, and to develop better communication skills. If this was true during the movement to desegregation, it is no less true during the movement to integrated, quality education.

/continued ...

The general fact of wavering public support for public education irrespective of desegregation, is also relevant.

3. Administrative Arrangements

The elimination of the dual school system required many changes in the former way of arranging and operating. The movement to quality integrated education may require still more. Very often the new arrangements and administrative operations can be focal points for resistance to change and can provide points of attack which cover for the expressions of personal hostilities. By providing special assistance to deal with administrative arrangements and operations, many problems can be eliminated.

4. Identification

The problem of identification take many forms and have several ramifications. When merging two systems into one, both of the former systems by necessity must sacrifice some of their uniqueness. The former symbols rules, sanctions, codes, and specifications of the dual school system are no longer adequate. The inputs in a unitary school system are different than they were in the dual school system. Consequently, the educational production methods and outputs will be somewhat different. School systems changing to the unitary school system need help in reaching agreements about the new symbols, rules, sanctions, codes, organizational patterns, instructional materials and methods, and desired outcomes.

5. Instructional Program and Organization

There has been a need for many years to re-examine public school programs and the general patterns school systems have used to organize these programs. Some school systems have been paying attention to this need and have had the resources to make necessary changes, but many have not. Generally, school materials, methods of instruction, ways of organizing, instruments and methods of diagnosing and evaluation have assumed a real world that does not quite exist in the same way with the emergence of a unitary school system. There is a need to re-examine the programs, organizational patterns, materials, methods of instruction, and evaluation techniques which will be suited to the development of high quality, interracial education.

/continued ...

6. Staff Assignment and Development

In merging two systems, staff assignment becomes a complex problem. The assignment of the administrative staff has presented some special problems. It has often been assumed that the problems and needs for staff development lie with the academic upgrading of weak teachers. There is unquestionably a need for helping weak teachers move toward some level of professional competence and this problem becomes even more fundamental in the struggle for quality education. But this has not been all of the problem. Some were expected to be masters of a content with which they were not familiar; others were faced with children about whom they were apprehensive in teaching; and even were operating under new or different organizational patterns. All of this contributed to the teachers concern for his own competency. By September, 1972, most Georgia teachers will have had their initial experience in the new, unitary situation. A few have become so frustrated they will not return, but most will. The problem of 1970 and 1971 have all not been solved and the teachers of 1973 will still be searching for direction, instruction, and support. School administrators still need help to understand the newer needs and the development of leadership skills to deal with these needs. Administrators and teachers in many systems will be searching for sound, imaginative ways to move on from "the years of crunch" to the achievement of high quality interracial education.

7. Political, Community, School-Power Structure, and Decision-Making

Putting black and white children, teachers, and administrators into the same building is only a step in the creation of successful unitary school systems. The former dual school system made it clear that the Negro was not a part of the school and community decision-making process, but was more a recipient of a more or less benevolent white authoritarian power structure. In the dual school system, the Negro under the guardianship of the white power structure had its own leaders, identification symbols, rules, codes, sanctions, and formal and informal organizations. Not only were these matters "worked out" in regard to the school, but they also carried over into the political, social, and economic aspects of the community. Concomitant with the development of unitary school systems, blacks are expecting and in some cases demanding not only to be let into the house, but also to be part of the family. These expectations and demands have had many repercussions throughout the community -- inside as well as outside the school.

/continued ...

They will continue and increase as the remaining tensions and problems of desegregation are solved and the movement to integration proceeds. Indeed full black participation in community and educational decision-making processes will be a key measure of the achievement of integration. There is still a need to conceptualize and demonstrate newer patterns of community decision making, at least at the school level, which bring blacks fully into the decision-making process.

8. New Forces for Educational and Social Change

Problems in all the areas described above have often come to focus in unrest on the part of students, teachers, and parents. These groups are increasingly formulating and pressing demands for change upon school administrations. For example, while there have been interracial tensions, black and white students in many places are coming together in common cause and uniting in their demands upon and in "the establishment." The major problem becomes intergenerational. Similarly black and white teachers increasingly find common cause in demands for change. The same is true sometimes of black and white parents. These trends represent new forces affecting the governance, organization, and conduct of schools. All parties -- administrators, teachers, parents, and students -- need help in clarifying their legitimate self-interests and in working through with the other parties to constructive changes which benefit each and the school as a whole.

And now in 1972, despite the technical conformity to desegregation compliance of Georgia schools, education for many or most black children of Georgia is not equal. The goal has not been achieved. There are still vestiges of duality and many predominantly one-race schools in the state of Georgia. These schools for the most part are to be found in the larger cities of Georgia where the desegregation process is complicated by defacto segregation.

In addition to defacto segregation, educational opportunities are not equal in many desegregated schools. In some places, tracking and grouping practices result in resegregation within schools. Racial tension and conflict and discrimination by teachers, administrators, and students affect equal educational opportunities. Where tension is great the education of all children suffers.

/continued ...

This includes more subtle forms of communication and human relations problems, as well as the more overt and abrasive problems. Teachers, even when not overtly prejudiced, have difficulty teaching and relating to children of the opposite race and to children of low income families and the education of these children is impaired. Teachers complain over and over, about the problem of discipline. Other school personnel --- e.g. coaches, administrators, guidance counsellors --- suffer similar problems.

Minority students often find barriers - subtle or unsubtle - to full participation in extra-curricular activities. Discipline is not always exercised impartially. Many people feel that disproportionate numbers of black students are expelled and suspended, although administrators deny this publicly. The replacement of black administrators and teachers by white administrators and teachers has further undermined black confidence in the "power structure" and even, in the goal of integration itself. These problems, white flight, and general loss of public confidence in public education, combine to depress the morale of many school people and constitute a source of frustration for man educators in the state.

It should be noted, however, that superintendents, principals, and teachers are reporting the school year 1972-73 as the best year they have experienced in several years.

Recently our office personnel met with staff members from several similar centers in the Southeast. We found that the current problems associated with the school desegregation process were quite similar throughout the Southeast and I would like to share them with you. It should be emphasized that, while these appear to be the major problems, other salient problems not easily subsumed under these rubrics and newly emerging problems will not be excluded.

1. Problem: Resegregation within schools, through tracking, grouping, and various means of racial isolation. Analysis: This process is based upon an attempt by teachers and administrators to cope with the needs of a wide variety of youngsters and upon racism.

This process deprives majority and minority youngsters of the opportunity to learn to live and work together coopeartively and productively. It deprives minority children of a stimulus to learning which research indicates will improve their learning. It can reinforce the negative self-concepts and low educational aspirations of minority children, leading to self-fulfillment of negative expectations. Problem solution: Teachers and administrators need to be led to see that rigid grouping practices are usually not helpful to the learning of either majority or minority students and that many alternatives to rigid grouping learning to use such alternatives. Solution of this problem would help achieve truly equal educational opportunities for all children.

2. Problem: Racial and intergenerational tensions. Analysis: The problem is simply that racial tension exists in many school between black and white students. In some cases it erupts into open conflict. It goes back to the history of hostilities and fears of a separate and unequal society, but it can be influenced, negatively or positively, by policies and events in the school and by parental and community forces. Racial tension also exists in many schools, although in less overt form, among teachers and between teachers and administrators of the different races. The term "intergenerational tension" is included because the institute, as well as others in this region and throughout the nation, often find that when interracial tensions among students are diagnosed and dealt with, tensions between students and the school "establishment" surface to displace racial issues as the main source of conflict in student minds. The two often become inextricably interwoven and must be dealt with together. A school that is closed by disruption or boycott cannot do a job of education; neither can one that is still open but rent by tension. Problem solution: Administrators, teachers, counsellors, and other school personnel need training to help them learn to recognize, diagnose, and deal with racial and intergenerational tensions among students and tensions within the staff. Such training involves learning to detect signs of building tension and skills to act to eradicate its causes and reduce it before conflict becomes more severe. It involves developing skills in working with interpersonal

and intergroup relations. It also involves learning to deal with conflict in such a way that constructive change, rather than polarization and demoralization, result. Solution of such problemswould remove barriers to human relations and learning and free students and staff up to make school a happy, productive place.

3. Problem: Even where racial tension is not overtly high, subtler problems in human relations and communication usually exist. Problem analysis: Such problems result from racial dislikes and suspicions, as well as a variety of other sources. They are separated from number (2), above, to emphasize that, in the absence of highly visible problems, more subtler problems exist and need to be dealt with: they impede learning and they can build into bigger problems. A major problem is to get school people to recognize and deal with more subtle problems. If there are no gross problems in black/white relationships they tend to want to believe there is no problem at all. They do not want to rock the boat. Problem solution: Teachers, administrators, counsellors, and other school personnel need training to identify, diagnose, and deal with such problems. This involves acquiring self-knowledge, insight into different cultural backgrounds and intergroup relations, and the acquisition of group, interpersonal, and intergroup skills. Solution of such problems would usually prevent the development of larger problems and, again, free students and staff up to make school a happy, productive place. Better communication and collaboration would result not only between blacks and white, but between all students and staff, between teachers and administrators, between new teachers and old teachers, etc. These effects, in turn, would feed back to further promote interracial harmony.

4. Problem: Instructional methods, curricula, and organizational patterns frequently need adjustment to meet the needs or multi-ethnic schools Problem analysis: When instructional problems are analyzed, it often turns out that communication and human relations problems underlie them. However, instructional problems are genuine and must be solved if children are to have equal educational opportunities. Desegregation brings into some classrooms a group of students with a widerrange of achievement levels. It confronts many teachers with a larger number of economically deprived children

than they have taught before. To some it is practically a new experience. It brings together teachers and children with differences in life styles and learning styles. Intergroup tension, when it exists, creates noise in the channels of instruction. Curricula and materials which ingnore one race create discontent or boredom for students of that race. Organizational structures satisfactory for homogeneous groups of students may be unsatisfactory for heterogeneous groups. Problem solution: Teachers need help in adopting new and modified teaching strategies involving individualization of instruction, productive group work, team teaching, interest centers, and other strategies that will help children of varying backgrounds to learn and to enjoy school. Teachers, administrators, supervisors, and others need help in revising curricula and organizational structures to meet student needs. Solution of these problems would improve school climates, foster individual learning, and reduce individual and intergroup tension.

5. Problem: Minority students--by subtle or unsubtle means--are discouraged for participating in extra-curricular activities. Problem analysis: School is more than classes and more than informal relationships. Hard work has helped alleviate the major problem of black students losing identify and pride through the loss of important symbols--school name, school colors, school mascot, etc. But loss of other functions--e.g. dances, pep rallies--lingers and there are still barriers to full participation in school activities and government. In predominantly black schools, white students sometimes face the same problems. Certain problems--such as students who have to go to jobs after school and others must catch buses immediately after school require organizational changes. Others are more simple: why, for example, should the requirement of a high grade average deprive students who may need extra-curricular activities most? Any why should racial fears and prejudices rob minority students, or in some cases all students, of such activities? Problem solution: Teachers administrators, and others need training in recognizing the importance of these problems, diagnosing barriers to student participation and designing rules, procedures, and schedules to solve them. Policies need to be reviewed by administrators and school boards.

Sponsors of extra-curricular activities need help in developing group and intergroup skills. Solution of these problems would reduce tensions in schools and facilitate and expand learning.

6. Problem: Discipline. Problem analysis: The problem of discipline is subsumed under problems previously discussed, but is isolated for analysis because it is so salient in the minds of school people and the public. It has two important aspects. One is simply the matter of classroom management, of maintaining order and sustaining the learning process. Desegregation unquestionably complicates the process because of all of the misunderstood communications and suspicious feelings that can pass between teacher and students, or among students. The other aspect is that of fair and impartial discipline as among students of different races. Administrators, up to and including school boards, are accused of partiality. A typical complaint--sometimes leading to school and community bitterness and disruption--is disproportionate expulsion and suspension of black students. Problem solution: Administrators, board members, teachers, counsellors and others need training to understand and deal with both aspects of this problem. They need to understand its roots and the consequences of different actions and stances. If "the discipline problem" were really to be solved, many, many schools would become different places--both in the sense of immediate improvement and in the sense of getting down to an on with fundamental problems critical to our schools and our democracy.

7. Problem: Restoring public confidence in public schools. Problem analysis: In the section on "background information", the fact was described that some school systems are fighting for their very lives in the face of white flight and the decrease in moral and financial support for them. Many systems face this problem in lesser degree. It is a critical time for public education in the United States. Books are making the rounds on "how to keep your child out of public school." Desegregation is a major factor in this crisis in Georgia, but it coincides with other forces operating in the same direction. Problem solution: This problem requires every solution mentioned above. Basically, the task is to assist school people, through training to provide equal, harmonious, and effective educational programs for all children.

Additionally, it is to help training school personnel and officials to maintain effective efforts in public and community relations and to involve parents meaningfully in school programs. Restoration of public confidence in public education, if achieved, would be the basis for providing an overall climate for equal effective education and for solving the various problems that stand in its way.

ED 075460

TM 002 537

PERSPECTIVES OF SCHOOL DESEGREGATION IN THE SOUTHEAST

By Dr. Morrill M. Hall
University of Georgia

For just a brief period of time, and it will be brief, I want to talk about one dimension of the problem, then I'll take a few seconds and crystal-gaze a little bit and then hopefully, we might have some dialogue and reaction from you.

I do not know how to discuss adequately the point that I want to discuss this afternoon. One of the reasons is that it is nothing new, it's not a new concept; it's a very simple thing and, therefore, people are inclined, when there is nothing new involved, to say, "Well, we've already taken care of that." So, I don't know how to act. Another reason is that I'm not able to articulate well enough to say why it is that I think this very simple thing that I am going to talk about is so important.

The main thrust of what I want to say in the next two or three minutes is simply this, that the future of public education in this state and in the southeast, and in this country, to a greater or lesser extent, depends upon our ability to effectively involve all segments of our population in the on-going decisions relating to education. You see why I'm scared to even talk about it, it's so simple and we've talked about this all of our lives and, again, I'm not able to articulate why it is that in the last five or six years, something has emerged that has made this the single most important factor that we can deal with. We can spend a lot of time in talking about the background of the system of education and the fact that we traditionally and historically have never wanted to involve other than those in public education in the decisions relating to it. Our whole system is built this way. We really have never wanted, sincerely, to involve people who don't believe as we believe, or as I believe, in the actual decision-making process relating to education and, therefore, our whole way of handling the schools and making decisions relating to them, get in the way. The system just does not lend itself to involving people. Of course, there are many issues and problems involved here. For instance, is it good to involve, whether or not we want to involve, other people; whether or not better decisions will be made, these kinds of things. But let's assume for the minute that for, whatever the reason, whether it's an inner feeling or whatever it is that we've decided, that to some degree at any rate, the future of public education rests upon effective involvement of people in decision-making. Then the question becomes, and I think this could lend itself to some research activities in some way, I don't know how, but then it becomes, "how do you change this system, how do you involve people in an effective way in an organization that has never really been concerned about it?" Oh, there were PTA meetings, but the people who came to the PTA meetings of the school of which I was administrator were always people that believed as I believed and we had the same things in common and this kind of thing. I'm just going to rapidly mention three groups that I think we've got to develop ways of working effectively with.

One of these is our own group, teachers in the schools. We have determined we have said for a long period of time that what happens in the classroom is the important thing and, therefore, the teachers can develop their own goals, set their own standards and I guess maybe this is true in the area of cognitive - I don't know what I'm trying to talk about now - but in the area when you're trying to develop some skills and some knowledges and this kind of thing. But when you get into another area and I'm reluctant to call it "affective domain" because I don't know what that means, it might be too broad, it might not be broad enough, but when we're talking about the aspirations and the hopes of people and when we're talking about feeding people into the mainstream of society in a meaningful way, then it becomes necessary, it seems to me, for us to learn how to involve all of the teachers in the decisions relating to the total program of the school rather than just departments and the like. Well, we can expand on that and you can expand on that, but this is one of the emerging trends that seems to me to be important is that, in some way, first of all the emerging trend is that they are being involved more in the total program of the school but the important thing is how can we do this more effectively.

Another group that I'm just going to mention quickly is that some way, somehow, we've got to learn how to involve our students in the on-going processes of making decisions relating to schools.

Now, I'm not saying, I'm not advocating that students make decisions about the schools, all the decisions; there have to be parameters and there have to be frameworks but, out of necessity in the past few years, some schools have set-up student advisory committees and have begun to work with them and, interestingly enough, in some places, they're beginning to find or sense, or some people are, that in addition to solving some of the immediate, of the moment problems, that something is happening in the schools as they are better able to effectively involve students in the on-going process. I don't know what this mean, I don't know how you do it, I don't know what the parameters are, I just think that some way we have to learn how to do this in a more effective way.

And then the third group, which is naturally the group of parents, of community people, those who are not directly involved in the professional aspect of teaching. Even if we come to grips with the idea that we do want participation and involvement by not only people who believe as we believe, but even people who believe like Paul Torrance believes - heaven forbid - or somebody else -- George Rhodes -- or even if we come to grips with that and decide that we really, sincerely, want to utilize and involve people who are concerned -- all segments of the population -- in helping make decisions relating to schools, this major problem still remains, "how do you do it effectively?" For instance, as you know, in the Southeast, traditionally and historically, the Boards of Education have been made up and consisted of white people and, in the last few years, because of survival, because of pressure, hopefully because of the real knowledge that this is the way things ought to be, there are more and more black people for instance, being named to Boards of Education and, I would say in passing, that this puts great pressure on those new people who are named to Boards, but even in the area of official Boards of Education we have to be able to utilize them more effectively. Another example, under the ESAP program, you may remember that one of the requirements was that we had to have a bi-racial advisory committee. Well, we have learned, first of all, that we simply do not know how to utilize or involve these people in decisions related to schools -- I'm not sure we wanted to at the time -- getting by that point, we don't know how to do it and so, in many cases, instead of being a help which the legislation anticipated and which, theoretically, is a wonderful idea, there are many cases where having an advisory committee actually has hurt the cause of education. I think that some way we must learn how to involve advisory groups in more than an advisory capacity. The community groups -- the ESAP groups -- the idea behind them was wonderful. They were to support the public school effort but in actuality we found them going in different directions and building walls in some cases -- not always, some of them did a wonderful job -- but it just indicates the complexity of the problem I am discussing. I wish I was articulate enough to say why it is that out of my own experiences in the last few years, I believe that this involvement in an effective way will have a great deal to do with the future of public education. Now that I have said that, let me just make three statements in terms of crystal-gazing and then, hopefully, some of you will have something to say.

First of all, not only am I an optimist by nature but my experiences the last few years lead me to believe that we are on the threshold of having the greatest public education system that we've ever known. There are some things that I could say that would tend to document that but it is a belief that I have that we are about to have the greatest public school system -- greatest in terms of anything you want to say, student achievement, academic achievement, citizenship, aspirations, hopes, whatever -- we're about to have the greatest public school system we have ever had.

Secondly, I predict that about --- I shouldn't put a figure in --- but about 75% of the private schools that have been established for purely segregative reasons, will drop by the wayside. 25%, 15%, 10% will not. Therefore, the support of public education is going to increase and there will be a motion toward public education in a way that we haven't had before.

And thirdly, and this is my bias in regionalization, I believe for the next 20 or 30 years that the showcase of education in this country will be in the Southeast and that the schools in the South and the Southeast will be those schools that people from all over the country will come to visit, to see what's being done and what's making them what they are. Now I wish you would react, make any comments concerning the implications for research --- say anything you wish!

ED 075461

TM 002 538

PERSPECTIVES OF SCHOOL DESEGREGATION IN THE SOUTHEAST

By Dr. Harry B. Williams

University of Georgia

These comments describe briefly the general situation to which Mr. Hill and Dr. Hall will address more specific remarks. It is a highly varied and complex situation. All Georgia districts are technically in compliance with judicial or administrative desegregation standards, though court appeals are pending in several. This tells relatively little of the story, however. Among the 189 school districts there are those which are highly urban and those which are highly rural. There are large cities with familiar inner-city problems and familiar problems of lingering (or growing) defacto segregation. There are rapidly growing and relatively affluent suburbs. Some of these suburban areas see the rapid imposition of urban, middle-class populations and values on what were very recently rural folk communities. There are counties with mixed rural-urban, agricultural-industrial bases that are holding their own, or making progress, in the swirl of social and economic change. And there are rural counties where community and school officials fight a declining economy and a declining population, with attendant declining revenues, while attempting to provide governmental and educational services. While television serves all communities, introducing all to the vicissitudes of the large society and kindling the young to new ideas and aspirations, it must also be recognized that the heritage of the post-slavery, share-cropper social system lingers strongly in some areas.

These variations cannot be related on a one-to-one basis to racial conflict or desegregation problems, however. Although, by and large, the research findings that resistance to desegregation varies directly with proportion of blacks in the population hold, this does not always follow.

Although, by and large, the general finding that abrasive racial confrontation varies positively with size of city holds, there have been ugly and dangerous confrontations in rural Georgia communities and schools.

How does this picture relate to integration? With the possible exception that defacto segregation and other factors have hindered integration more in the large cities, we cannot relate integration precisely to the variations in community size. Another variable, very clearly, has been the commitment, steadfastness, and skill in community relations of the school superintendent. Other variables have to do with the historic and current levels of racial tension in the community, with the existence of effective black/white channels of communication and decision making, and with the degree of commitment of both whites and blacks to overall community stability and progress. Acknowledging the existence of these and many other unmeasured variables, we find, in oversimplified terms, three kinds of school systems and school districts in Georgia.

First, there are those that are having deep trouble. These troubles may result primarily from external pressures, such as the controversy over "busing", or primarily from internal problems. Disruptions, black/white confrontations, and boycotts have temporarily closed some schools.

The saddest situations are those in which public school systems seem to be in a fight for their lives due to effective white attempts to reinstitutionalize segregation through private schools, with a concomitant decrease in the financial and moral support of public education (sometimes with covert, or overt, support of the public school board).

Fortunately, a minority of school systems in Georgia are having such deep trouble.

Secondly, there are those that have real problems but not deep trouble. These systems are experiencing few overt problems in black/white relations; but they are struggling with basic educational problems associated with desegregation and seeking to deal with (or deny) more subtle problems in communication and human relations.

They are in the "accommodation" phase of transition to unitary schools. They can still go either way -- toward massive mediocrity and/or explosion, or toward quality, integrated education. The large majority of systems in Georgia fall in this category.

Thirdly, there are those that are on the way. In such situations, black/ white problems are minimal and the schools are making further moves towards true integration and the basic improvement of education. A few systems are in or very near this position.

In summary, Georgia school districts cover a continium from affluent to very poor, dynamic to stagnant, sophisticated to unsophisticated, good morale to poor morale, sound school progress to poor school progress. They include a few which have accepted desegregation with little opposition and a few which have offered (and some which still offer) bitter and continued resistance. They include those in which public education is strong and viable and those in which it is deeply threatened. They range from those in deep trouble to those who are "getting with" quality, interracial education.

ED 075462

IDENTIFICATION OF GIFTED AND CREATIVE CHILDREN AND YOUTH AMONG BLACK DISADVANTAGED GROUPS

A Symposium/Workshop Presented by Members of the Bi-Racial Identification Committee

The format for the symposium/workshop consisted of brief sessions of brainstorming following each speaker's presentation. The audience participants recorded their ideas to extend further the ideas presented by the speakers, and worked in pairs, using an "Idea Trap" booklet per pair for a brainstorm record. The booklets were collected after the session for further use by the Identification Committee. Miss Edith Knowlton, Resource Teacher for the Atlanta City Schools, coordinated the distribution of the booklets for the brainstorm sessions.

Introduction: Catherine B. Bruch

The history and purposes of the Committee for Identification of the Disadvantaged Gifted were reviewed. Their monthly meetings began in April of 1972 to deal with issues and to develop and implement ideas for identification of the gifted and talented in culturally different populations. They were motivated by the necessity for going beyond, extending, or adapting the usual measurement procedures prevalent in the identification of potential abilities in children. The committee places emphasis upon identification through the positives, or strengths, of a cultural group, including abilities to "cope" with and surmount the conditions of poverty or other difficult environmental situations. The committee intends to implement efforts focused upon early childhood, a curriculum impact, and attitudes and methods in teacher training programs.

Speakers:

I. "Creative Positives of Black Disadvantaged Children"
E. Paul Torrance, Chairman, Department of Educational Psychology
University of Georgia, Athens

Torrance proposed uses of the "Creative Positives" (Torrance, 1972) as bases for: identification of the gifted disadvantaged; development of curricula; devising strategies for teaching/learning; assessing applied achievements; and development of a variety of instruments for assessing disadvantaged children. He noted as a rationale two negative and two positive aspedts: (N1) traditonal measures do not function well in the identification process; (N2) general compensatory education for the disadvantaged has failed (Torrance, 1972); (P1) the ways of life of disadvantaged children facilitate certain development at a level surpassing the non-disadvantaged; (P2) these positives are more plentiful in black disadvantaged groups. He presented tables summarizing studies of use of the Torrance Tests of Creative Thinking with such groups (Torrance, 1971), including some studies which indicated the superior

TM 002 539

performance of black children on figural creativity. He suggested that educators must therefore look both to psychometric and non-psychometric indices for identification of the disadvantaged gifted.

The checklist of 18 creative positives and related observable behaviors was presented as a basis for identification, curriculum planning, and assessment of growth. Torrance concluded that some of the behaviors noted may be used to defeat a teacher, but that they may also be viewed positively as indices of future potential for leadership and vocational strength.

II. "Creativity as it is Related to Expanding Educational Opportunities"

Walter R. Jacobs, Jr.
College Entrance Examination Board, Atlanta, Georgia

Jacobs noted that the majority of his remarks would not be related to testing, but rather toward the biases of social conditions reflected by tests. There was indicated some need to clear up the measurement biases, however. Two methods possible would be the use of more culturally directed tests, or modification of conventional tests. He cited recent work with the SAT in which efforts were aimed at increasing the band width, reflecting more skills of blacks, and decreasing the "hang-up" on precision.

To reduce the biases of society, he related to the need to influence teacher perceptions to become more positively oriented toward disadvantaged children's potentials, citing a controversial study in which the teachers' initial perceptions of children biased the learning results. Jacobs then offered as challenges for brainstorming some societal issues: (1) citizens and educators have the responsibility to vote for those who evidence interest in black needs; (2) black citizens should acknowledge that there are some good hearted white citizens with such interest, (3) white citizens should discard the old stereotypes about blacks; (4) administrators should see that black children have good models -- the best teachers, etc; (5) all persons should recognize that people can change; focus upon problem resolution can change people.

III. "Creative Explorations at the Eighth Grade Level"

Mrs. Gwendolyn Howard, Director,
Bankhead Center for Daily Living, Atlanta, Georgia

Mrs. Howard described the rationale for the selection of children for a "creative explorations" resource room program, in which expediency necessitated choosing 30 children who were not retarded, but who were difficult, academically and behaviorally, for their teachers. During the two-hour daily program it was discovered that, contrary to information from their prior school history, the eighth grade students were verbal, could think, could read and spell, and could decide upon and carry through in-depth learning activities which provided, for the first time in school, really meaningful learning. She concluded that perhaps educators have so rigidly structured school experiences that the students haven't had time to be creative, to learn how to learn, and to gain confidence in the use of their abiliites.

IV. "Initial Returns from a Biographical Interview Schedule"

Robert Westcott
Resource Teacher for the Gifted
Walker County School District, Lafayette, Georgia

Westcott emphasized the rationale of human ecology - that we cannot afford the loss of the potentials of the younger generation. He told how, to avoid some of the hazards of standard measurement instruments, the committee had chosen to implement study of biographical data. Through collection of bio-data the group hopes to find a pattern for identification of the gifted in disadvantaged populations. An open-ended approach in questionnaire form has been initiated by Westcott so that the respondent may reply in his own preferred verbal style.

Scanning of initial results show that multiple answers occur (rather than those delimited by the test-maker's options), and that a sense of humor can emerge. Some observational trends include: (1) those in hostile homes have poor responsiveness except to self needs; (2) the gifted disadvantaged feel lonely, isolated; (3) vocabulary meanings differ, e.g., volume as quantity of space, vs. quantity of sound (disadvantaged). The long-run promise of the bio-data procedure, in combination with other factors, would yield significant discriminators for identification purposes.

V. "The ABDA: Making the Stanford Binet Culturally Biased _for_ Disadvantaged Black Children"

Kay Bruch, Coordinator of Gifted Education
University of Georgia, Athens

Bruch reviewed the rationale and history of the development of the "Abbreviated Binet for the Disadvantaged, or ABDA" (Bruch, 1971). The instrument is composed of 4 selected items at each year level which were most readily passed in the normative sample of Kennedy, _et al_ (1963), and is scored with the pro-rating procedures for the usual abbreviated Binet L-M. Initial results (N=100+) show that the IQ is raised an average of five points when re-scored using the ABDA method on protocols of black children. Strengths represented by the culturally selected ABDA items include these Structure of Intellect components: (1) visual and auditory figural content; (2) memory operations; (3) convergent production operations; (4) units and classes products (except semantic); and (5) systems products. A battery of test selections, and a series of observations based upon these strengths were suggested for identification procedures to be used in selection and development of the gifted in black populations.

Since vocabulary was removed from the ABDA administration, Bruch suggested that it be administered and scored separately for an _estimate_ of vocabulary age, if necessary for diagnostic purposes. A study in process indicates that revised vocabulary ordering inferred from the Kennedy data shows no difference from the usual order of vocabulary administration. The ABDA was indicated as a current _experimental_ effort to reduce the negative IQ bias against black students. Additional identification measures should include figural creativity (Torrance, 1971), and an estimate or rating of behavioral or social intelligence, such as peer leadership.

Summary: At the conclusion of the presentations of all five speakers, seven persons listed their interest in further activities of the committee, and 12 received copies of the APDA for experimental use. The "idea-trap" booklets from the brainstorming sessions are being summarized for use by the committee. Others interested in the committee's actions or in cooperation in data collection are urged to contact Dr. Kay Bruch, Dept. of Educational Psychology, University of Georgia, Athens, Ga. 30602.

References

Bruch C. B. Modification of procedures for identification of the disadvantaged gifted. Gifted Child Quarterly, 1971, 15(4), 267-272.

Kennedy, W. A., Van De Riet, V., & White, J. C., Jr. A normative sample of intelligence and achievement of Negro elementary school children in the Southeastern United States. Monographs of the Society for Research in Child Development, 1963, 28(6), 1-112.

Torrance, E. P. Are the Torrance Tests of Creative Thinking biased against or in favor of "disadvantaged groups?" Gifted Child Quarterly, 1971, 15(2), 75-80.

Torrance, E. P. An alternative to compensatory education. Educational Horizons, 1972, 50(4), 176-182.

ED 075463

TM 002 541

Information Feedback Systems (IFS) and Educational Goals

William F. White

University of Georgia

The question that parents and local school system personnel have been asking more intensely than ever before is "How good are our schools?" "How good is this project?" Behaviorally stated objectives, competency-skilled based instruction, accountability, cost effectiveness, and teacher effectiveness have dominated the evaluation concepts over the past five years and are expected to generate the major concern for health, education, and welfare in years to come.

My colleagues and I have developed an information retrieval system in four communities which has worked effectively over a number of years. We always describe the system by listing a few definitions and principles that are fundamental to the success of the system:

1. Information is raw data with some interpretation or meaning.

2. System is the functioning of two or more components as one process.

3. Feedback refers to the immediate reinforcement (knowledge of results) to instructor, staff, and student. Retrieval refers to quick access of data especially by computer facilities.

4. Evaluation is information for decision making about alternatives. The basic purpose of evaluation is to obtain data so that most decisions are based on objective information.

5. Evaluation should be centered in the local community. Summative type evaluations or national evaluation do not give useful feedback to local communities. Local evaluation can supply information to evaluators who are contracted by the Federal Government to discover whether programs are effect-

ive or not.

6. The whole child must be considered in all educational goals. Focus on mere reading or math skills without concern for health, psychological, and social services are doomed to failure.

7. A basic function of the system is the development of a comprehensive system whereby each staff member receives the information he needs when he has need of it.

The systems approach to evaluate any program is simply a way of looking at a program with objectives clarification, decision making, and program planning. Each school or school system must be looked at as an integrated and complete system. Change in one staff member affects all other aspects of the program. If one of the components fails to achieve success, the other components will have marked difficulty in reaching their goals.

The Follow Through (FT) program affords an excellent model for demonstrating the effectiveness of our information feedback system. In establishing our IFS in a FT program, the number one activity is to help formulate general objectives of the program, as well as specific objectives of each major component in the program. FT is a special, government sponsored, experimental program, to continue and sustain development of Head Start children. During 1972-73, there were about 163 projects in 50 states funded at $70,000,000. All projects, except the first 40, were obliged to have a sponsor to assist them in reaching success with economically deprived children. The Federal Government contracted for millions of dollars each year with Stanford Research Institute (SRI) for evaluating the Follow Through program on a stratified sampling basis. The ineffectiveness of the SRI evaluation is well documented Science (October, 1972).

In FT projects, we recommend the following components for an ideal information system: Administration, Dissemination, Instruction, Medical-Dental, Nutritional, Psychological Services, Social Services, Parent Involvement, and Evaluation. In each of the components, behaviorally stated goals as well as enabling objectives must be prepared. In the Medical-Dental component 85 variables relating to each child is monitored and analyzed for two critical periods during the year. Examples of behaviorally stated goals, progress toward the goals at mid-year, plans for work to May, 1973, and comments are described in the following feedback report:

- - - - - - - - - - - -

Insert Table 1 here

- - - - - - - - - - - -

In every component, objectives are agreed upon by the local FT staff. Instruments are employed in each component so that data can be gathered to register any progress toward component objectives.

We believe strongly in an information officer (IO) who is responsible for the total information exchange. He arranges for all tests, surveys, information forms, and analysis. Generally, the instructional component appears to be the most important to parents, politicians, teachers, and administrators. The emphasis upon accountability and competency-based teacher education is extremely well demonstrated in our information feedback system.

INSTRUCTIONAL FEEDBACK

Reading Achievement (Second and Third Grades)

Feedback of data is conducted in small group workshops. Test data (Iowa Tests of Basic Skills, ITBS) for example, is discussed among FT staff, teachers, and EESI consultants at each school. A form of the test is given for diagnostic purposes. The test is used as a criterion reference test for

Table 1

HEALTH SERVICES

OBJECTIVES (as stated in 1972-73 Proposal)	PROGRESS	PLANS	COMMENTS
1. To assure that each child entering kindergarten and/or any Follow Through class for the first time shall have a complete health evaluation by the end of the first quarter. This includes a medical evaluation, dental evaluation, laboratory tests, height and weight assessment, vision and hearing tests, and review of immunization status.	By December 3rd, 1972: -1,250 children were assessed for height, weight and immunization status. -of 553 eligible kindergarten and new children first through third grades,	Children absend and/or new enrollees are to be assessed upon entry.	
	1. 325 had physical exams by a private pediatrician	Procedures 1, 2, 3, & 4: Arrangements are to be made with parents of children who are absent or new enrollees to carry their children to the local health dept. or a private clinician.	
	2. 450 had hematocrits		
	3. 240 had urinalysis tests		
	4. 97 had tuberculin tests		Procedure 4: done as scheduled by the local health department. Fulton County-Kdg., 1st, 2nd. DeKalb Co. - Kdg., & 1st.
	5. 254 had vision tests	Procedures 5 & 6: Absentees and new enrollees will be screened along with mass rescreening of all children first through third.	
	6. 358 had hearing tests		

OBJECTIVES (as stated in 1972-73 Proposal)	PROGRESS	PLANS	COMMENTS
1. Cont'd.	7. 553 assessed and scheduled for treatment by private dentists. R_x has been completed on 158, 247 inc., 10 refused R_x.	Procedure 7: Examination, prophylactic and flouride grades first through third.	Complete dental care was provided for kindergarten and new children, and maintenance for grades first through third. Preventive dental education for all.
2. To assure that each child who is found to have a health problem receives the necessary evaluation and follow up within a month after recommendation or diagnosis is made.	-of 31 medical referrals: 30 were treated by community agencies 1 by a private doctor -of 94 hearing referrals: All were followed-up by the school speech therapist for retest	To continue early identification and follow-up on health problems.	One month seems to be a realistic goal for identification and follow-up R_x.
	-of 6 vision referrals: 5 were referred to community agencies		In order to obtain glasses at the community hospital a parent must:

OBJECTIVES (as stated in 1972-73 Proposal)	PROGRESS	PLANS	COMMENTS
4. To provide parents with health instruction and/or information on appropriate health habits, preventive and corrective at home measures and ways of making use of existing community agencies.	Three parent group sessions to discuss health problems have been successful and well received by parents. Additional sessions were requested. Of 31 referrals: 1 was followed-up by private clinicians 30 by community agencies 94 by school specialists	Additional sessions on health information are now scheduled. The Health Coordinator and health aides will continue to find ways to reduce frustrations by acting as a liaison between parents and community health agencies. The health aides will continue in their role as outlined under plans for vision referrals.	Medical and dental personnel are available on request.
5. To assure that each child receives health instruction encouraging and teaching the benefits of dental and physical hygiene as an integral part of the regular school curriculum.	Health aides work with teachers to integrate curriculum with practical experiences. Example: Brushing teach after meals at school, and dental health education during dental sessions.	Health information will be provided for teachers.	

OBJECTIVES (as stated in 1972-73 Proposal)	PROGRESS	PLANS	COMMENTS
6. To review health records and assure that the health program for each child is scheduled in a logical sequences.	The Health Coordinator and health aides reviewed records in Sept., scheduled Kindergarteners and new children for complete evaluations, planned for preventive measures on old children and continuous follow-up R_x on previous health problems.	Records will be reviewed periodically and data recorded as indicated.	
7. To provide data to assess the current status and progress of the health program and the final accomplishments of the program.	Data has been collected on the health status of each Follow Through child to be compiled by Educational Evaluation Service, Inc.	Feedback will be reviewed to assess needs for changes or adjustments in the program.	Feedback analyses are reported in Table 1 in the addenda of the report.
8. To provide training for health aides related to their specific roles.	Inservice for health aides and health contacts had been scheduled in the second quarter. This session will be conducted by the American Red Cross. Upon successful completion of their School Health Program a certificate in First Aid will be issued.	Inservice in other health related areas.	

reading and math skills. Other data (Phonics Skills Test, Behavioral Maturity, and Readiness) are also discussed among FT staff and EESI consultants. The FT staff continue the feedback to teachers as needed.

Fall (1972) achievement data were gathered for instructional use only. Interpretation is given in terms of student scores and classroom performance on each question. Teachers are provided with only the knowledge of their performance of their class and of the National averages and the FT averages, at each grade level. Normative interpretation are discouraged by providing no percentiles or grade equivalent scores.

Feedback sessions generally focus on three areas: 1) achievement problems, 2) test-taking skills, and 3) general problem solving skills. Teachers are asked to check on their high and low scoring students to assure that these students were receiving appropriate assistance.

They also examine the item analysis data in great detail. Teachers are directed to find areas of weaknesses for their classes. Questions that few children answered correctly (item difficulty of .35 or less) could be classified as indicating several things: the concept was not important to the instructional program; the concept is important and needs attention; the question was failed largely due to failure to understand test taking skills; or the task required general problem solving skills that need to be developed.

The ITBS test manual, similar to any standardized test manual, provides considerable guidance in the exact purpose of each question. Thus, the evaluation of the importance of topics is made easier. The test content is listed in the following sections. A sample of one class's item analysis of vocabulary is provided. All item analysis are distributed to the classroom teachers. At times, the item analysis and frequency counts for the entire FT grade level are given to teachers to use as a local norm.

Vocabulary

The general skills presented in this test are:

1. Knowledge of word meanings.
2. The use of decoding skills involved in word recognition (phonics, contest clues).
3. Sensitivity for choosing one word in place of another.

There are 30 items in the vocabulary section of the test. "Difficulty" is the percentage of students scoring the item correctly. "Omit" is the percentage of items omitted by the class. Item 22, eleven percent of the students left the item blank. There were four possible answers to the items on this section of the test. Percentages of the students who chose each response is given. The correct response and its percentage of the class scoring correctly is indicated by the underline.

(See Table 1 for an example)

Word Analysis

Decoding skills highly related to the DAD program are tested in this component.

1. Initial sounds (Items 1-12)
2. Rhyming sounds (13-21)
3. Ending sounds (22-26)
4. Substitution, initial letters (30-44)
5. Substitution, ending letters (45-49)

The question that must always be answered if the information system is effective is simply, "Do children learn more? Is there a significant improvement in reading and math achievement scores?" Let me present two specific examples of significant improvement: 1) In Macon County, Alabama, 1972, grades four, five, six, and seven had the first significant gain in the history of Macon County. The fourth grade advanced one year two months in grade equivalent. There was no doubt the information system worked. 2) In the Atlanta Public School FT Program, in 1972, the second grade (N=325) FT students showed a 2.3 grade equivalent in reading and 2.4 grade equivalent in mathematics at the end of the school year. These grades equivalents (GE) were 3-4 months grade equivalent lower than national norms, but 5-6 months GE above a comparison group as well as the city wide norm. There is some support, therefore, for the fact that information systems does contribute to significantly improved reading and math performance.

TABLE 1

ITEM INFORMATION FOR CLASS 1220

Item Number	Difficulty	Omit	Proportion of 19 Subjects Selecting Each Response 1	2	3	4
1	0.737	0.	0.053	0.105	0.737	0.105
2	0.368	0.	0.158	0.368	0.263	0.211
3	0.579	0.	0.158	0.105	0.158	0.579
4	0.526	0.	0.158	0.526	0.263	0.053
5	0.316	0.	0.316	0.211	0.158	0.316
6	0.316	0.	0.316	0.158	0.316	0.211
7	0.526	0.	0.158	0.211	0.526	0.105
8	0.368	0.	0.263	0.368	0.211	0.158
9	0.263	0.	0.579	0.053	0.105	0.263
10	0.421	0.	0.211	0.421	0.211	0.158
11	0.158	0.	0.105	0.158	0.579	0.158
12	0.211	0.	0.211	0.105	0.368	0.316
13	0.526	0.	0.158	0.211	0.105	0.526
14	0.421	0.	0.368	0.158	0.421	0.053
15	0.211	0.	0.211	0.263	0.158	0.368
16	0.263	0.	0.158	0.263	0.316	0.263
17	0.632	0.	0.105	0.211	0.632	0.053
18	0.316	0.	0.474	0.316	0.158	0.053
19	0.421	0.	0.263	0.211	0.105	0.421
20	0.316	0.	0.263	0.316	0.211	0.211
21	0.474	0.	0.474	0.316	0.211	0.474
22	0.316	0.105	0.263	0.316	0.316	
23	0.526	0.	0.526	0.053	0.211	0.211
24	0.421	0.053	0.368	0.105	0.421	0.053
25	0.368	0.105	0.474	0.368	0.053	
26	0.316	0.	0.368	0.105	0.316	0.211
27	0.316	0.	0.263	0.263	0.158	0.316
28	0.316	0.	0.474	0.053	0.158	0.316
29	0.263	0.	0.421	0.263	0.053	0.263
30	0.316	0.	0.211	0.263	0.316	0.211

National Average	15	SD 3.2
Atlanta FT Average	10	SD 3.8

6. Silent letters (27 - 29)

(See Item Analysis for each class that was distributed to each teacher during feedback sessions.)

Reading Comprehension

The total reading comprehension score is composed of three sub-scales:

(a) pictures
(b) sentences
(c) stories

Item analysis for all the items in each component scored by each class was returned to each teacher. Item difficulties for each scale were discussed by all teachers with emphasis on the following skills classification:

(a) Details - recognizing and understanding stated or implied factual details.

1. Recognizing important facts and details.
2. Recognizing implied facts and relationships.
3. Duducing the meanings of words or phrases.

(b) Purpose - discerning the purpose or main idea of a paragraph.

(c) Evaluation - evaluating what is read.

(See Item Analysis for each class that was distributed to each teacher during feedback sessions.)

Problem Solving and Test Taking Skills

Some general problem solving skills appear to be ones that can be remediated. Examples are listed below. These examples arose in the Feedback dicussions. Other similar problems can be found by teachers after careful analysis of their data.

1. Switching directions on the test-children need to understand that in some "games" the rules change unexpectedly.

2. Defining words in context-children often would not continue to read if they found unfamiliar words.

3. Choosing alternatives-the children need to be able to approach some problems from the point-of-view of which solution among several alternatives is the best.

4. Flexibility in response-the children often know a correct answer that is not an alternative, so they need to learn to find alternative correct answers.

5. Looking for relationships among details-children often responded to parts of a picture, rather than to the entire story that the picture was telling.

These and other examples were discussed from the point-of-view of what types of games might be developed to teach these skills.

Behavioral Maturity Scale (BMS)

We have been using the BMS for a number of years. It has proven to be a very reliable and useful instrument. One of its most practical uses lies in the feedback to teacher and to the teacher-aide about their perceptions of the maturity of each child. There are four indices which the teacher, teacher-aide and FT Staff discuss:

1. Academic maturity
2. Interpersonal maturity (social)
3. Emotional maturity
4. Total maturity

When teacher and teacher-aide examine their perceptions of maturity, it is not necessary that they perceive the child in the same way (that is, give the child highly similar scores) but that they recognize the differences in their perceptions. Above all, the important contribution of the BMS data is the dialogue about the criteria of maturity. If the perception of anyone of the FT personnel toward the maturity of children is diffuse, confused, or based on mystical concepts, there will be difficulty for FT children. Our basic knowledge of those behaviors that indicate maturity must be identified and used with FT children.

All teachers receive a list of students with the following information:

ID	Yrs. in FT	Acad. Mat.	Soc. Mat.	Em. Mat.	Total
1110-8654321	1	20/19	20/19	20/19	60/57
1111-9876543	2	15/20	15/20	15/20	45/60

Discussion is based on this type of data. Teacher data are presented before the slashes and aide data are presented after the slashes. Thus- 20/19 means that the teacher's ratings totaled 20 on this scale and the aide's ratings totaled 19. Each scale can give scores as low as 6 or as high as 30. The total score can be as low as 18 or as high as 90.